2010-217B
Add #1

RUHLIN•PANZICA•JENKINS
RPJ
CONSTRUCTION MANAGERS

ADDENDUM NO. 1
July 20, 2010
She IFM

MODIFICATIONS TO THE
BIDDING DOCUMENTS
FOR
BUCHTEL / PERKINS COMMUNITY LEARNING CENTER
PHASE 3 – CLC PACKAGE

ISSUED BY: **GPD ASSOCIATES**
RUHLIN/PANZICA/JENKINS

ISSUED TO: **ALL BIDDERS**

1. GENERAL

A. This addendum covers changes to the Documents and in closing the Contract will become a part thereof. Each Bidder shall include these items to the extent they effect his bid.

B. These items modify only the portion of the Documents specifically noted. All other wording remains in effect.

2. PROJECT MANUAL

A. Specification Section 01500, TEMPORARY FACILITIES

1. ADD attached "Akron Public Utilities Bureau Notice to Contractors" to the end of this section.

B. BIDDER SCOPE CLARIFICATION QUESTIONS:

Q: Will background checks be required?
A: No

- All other questions received up through July 19, 2010 that have responses, can be found in GPD Associates portion of Addendum #1.
- Deadline for submission of Pre-Bid questions is 12:00 Noon, Wednesday July 28, 2010.

3. PRE-BID MEETING MINUTES

A. Pre-Bid Meeting Minutes are available for review upon request by contacting the CM and are for reference only.

SEE ATTACHED ADDENDUM #1 FROM GPD ASSOCIATIES

Randall A. Monteith, P.E.
Pilots Administrator

André L. Blaylock
Business Services Administrator

Brian M. Gresser, P.E.
WPC Plant Administrator

James L. Six, P.E.
Water Supply Plant Administrator

DONALD L. PLUSQUELLIC
Mayor

Gerald Holland, Director
DEPARTMENT OF PUBLIC SERVICE

Michael L. McGlinchy, P.E.
PUBLIC UTILITIES BUREAU MANAGER

GENERAL NOTICE TO CONTRACTORS

February 1, 2005

SUBJECT: Unauthorized Use of Fire Hydrants

Dear Sirs:

The unauthorized use of fire hydrants is illegal and causes many problems for the City of Akron, particularly the Public Utilities Bureau. The major problems associated with unauthorized hydrant usage are:

1. Potential to create a backflow condition wherein a toxic or bacteriological contaminant may enter the Akron Water Distribution System, causing consumer illness or death.
2. Potential unknown hydrant damage that could hinder local fire department operations.
3. Discolored water problems for residents and businesses.
4. Potential water distribution system damage.

Various sections of the City of Akron Ordinances, Akron Water Works Rules & Regulations, Ohio Revised Code, and the Ohio Environmental Protection Agency Regulations make unauthorized operation of a fire hydrant illegal.

The City of Akron, Public Utilities Bureau has instituted new procedures to discourage the unauthorized usage of fire hydrants, including filing a police report and pursuing prosecution of violators.

PLEASE NOTE: If you need temporary water service for a construction project within the limits of the City of Akron Water Distribution System, please contact our Utilities Business Office at (330) 375-2027 to make arrangements for a temporary water account.

All "Hydrant Meter Temporary Connections" supplied by the Akron Public Utilities Bureau are equipped with RPZ backflow preventers. The connections are available in the following diameter sizes and maximum flow ratings based on GPM (gallons per minute):

3/4" - 30 GPM
1½" - 150 GPM
3" - 300 GPM

Approval of applications for temporary water service are based on:

1. Type of work being performed.
2. The meter size requested.
3. The capacity of the water distribution system at a particular construction site to supply the maximum GPM requested.

Other than local fire department employees, only employees authorized by the Akron Public Utilities Bureau are permitted to operate fire hydrants on the Akron Water Distribution System, as well as install, move, or remove fire hydrant meter assemblies. We ask for your cooperation in eliminating the unauthorized use of hydrants.

Thank You,

Gerald O. Holland, Director
Department of Public Service

Randall A. Monteith, P.E.
Pilots Administrator

André L. Blaylock
Business Services Administrator

Brian M. Gresser, P.E.
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DONALD L. PLUSQUELLIC
Mayor

Gerald Holland, Director
DEPARTMENT OF PUBLIC SERVICE

Michael L. McGlinchy, P.E.
PUBLIC UTILITIES BUREAU MANAGER

RECEIVED
MAY 17 2006
CAVANAUGH BL

May 15, 2006

Cavanaugh Builders
1744 Collier Road
Akron, Ohio 44320

Subject: **New 4 Inch and Larger Water Service Installation Policy**

To Whom It May Concern:

The City of Akron, Public Utilities Bureau has instituted changes in contractor requirements for installation of 4-inch and larger water services. **EFFECTIVE IMMEDIATELY**, Public Utilities Bureau personnel will install the tap and valve only for any new 4-inch or larger service. Projects that were initiated before the effective date will be exempt from these changes.

As the Owner/Contractor you will have additional responsibilities when installing these water services. You will be required to perform the following:

- Install pipe within right-of-way to approximately seven feet from the pubic water main
- Expose the water main
- Assist Akron Water Department personnel in manauvering the tapping machine
- Backfill the excavation (according the local jurisdiction guidelines)
- Perform complete restoration within the Street Right-of-Way (according to local jurisdiction guidelines)

The pipe will continue to be inspected under the current Houseline Inspection Program. To schedule this inspection, contact Kurt Heffernan at (330) 375-2420.

As the Owner/Contractor you will continue to be responsible for obtaining all permits, approvals, and costs relating to the service installation, including the "Street Opening" Permit from the applicable government authority. Also, forward a copy of the 200psi hydrostatic pressure test on the houseline via fax to this office at (330) 375-2418.

If you have any questions, please contact me at (330) 375-2690, ext. 6413.

Sincerely,

Joseph A. Okolish
Utilities Engineering

JAO:mh

CC: SUPERINTENTS
ESTIMATORS

ADDENDUM NO. 1
to
BIDDING DOCUMENTS
For
PHASE 3 – CLC PACKAGE
BUCHTEL/PERKINGS COMMUNITY LEARNING CENTER
July 20, 2010

A. The original bidding documents for the above-referenced project are hereby amended as noted in Addendum No. 1.

B. This Addendum supersedes and takes precedence over information provided prior to the date of this Addendum.

C. This Addendum includes:

1. Addendum No. 1 – 9 pages.
2. Sketches: C-1; S-072010-01, S-072010-02, S-072010-03, A-1 thru A-22; T103-A, P-072010-01 thru P-072010-10, M-072010-1 thru M-072010-03, E-072010-01 thru E-072010-06, F-072010-01
3. Sheets: S-103; S-111; S-116; S-513; S-514; A-104;I-103; I-131; A-601; A-602; P-104, P-614, M-103,M-405, E-117, E-617, E-506A.
4. Specifications – 04810, 08520, 08710, 09640, 09900, 10432, 10505, 11450, 12494, 12900, 15561, 15562, 15852, 15853, 16120, 16461, 16555.

GENERAL

1. DESIGN CLARIFICATIONS

1. Building section A3/A-303A is not shown on A-101 or A-110 as it should be. However, section's location is shown in key plan on A-303A. This, along with the room labels shown within the section, provides ample information for bidders to locate section mark on overall plan sheets.

2. SUBSTITUTION REQUESTS

1. Citadel Architectural Products submitted a request for Envelope 2000 RR to be considered as an approved equal to manufacturers indicated under Section 07412 2.4.A.
    a. This product is **not approved** for use on this project.

2. Wood-Metal Industries submitted a request for wood cabinets and tables to be considered as an approved equal to manufacturers indicated under Section 12355 2.4.B.
    a. This product is **not approved** for use on this project.

3. Peerless Products submitted a request for G-200 Series to be considered as an approved equal to products indicated under Section 08520 2.2A.
    a. This product is **approved** for use on this project.

4. Mule-Hide Products submitted a request for Mule-Hide White-on-Black EPDM to be considered as an approved equal to manufacturers indicated under Section 07531.2.1.A.
    a. This product is **not approved** for use on this project.

5. Capital Cast Stone submitted a request for cast stone masonry to be considered as an approved equal to manufacturers indicated under Section 04720.2.3.A.
    a. This product is **not approved** for use on this project.

6. Action Floor Systems submitted a request for Action Pro Air to be considered as an approved equal to manufacturers indicated under Section 09642.2.1.A.1 and 09640.2.1.A.1.
    a. This product is **approved** for use on this project.

7. Tom Sexton and Associates submitted a request for Jasper Library Furniture to be considered as an approved equal to manufacturers indicated under Section 12900.
    a. These products are **not** approved for use on this project.

3. QUESTIONS

1. Question: Although the last page of the Specification indicates that the Roller Shades required are in Rooms 313, 418, 418D and 421, I cannot find these rooms on the Architectural Plans.
   Response: These rooms do not exist on this project. Disregard the schedule at the end of the spec, is not edited for this project.

2. Question: Is there a need for external wireless access points?
   Response: No.

SPECIFICATIONS

1. Spec Section 04810 Unit Masonry Assemblies: 2.2/C/1 The unit compressive strength of all cmu has been changed from 1900 psi to 2800 psi.

2. Spec Section 08520 Aluminum Windows: Lintex Inc.; L1000T Series has been added as an acceptable manufacturer.

3. Spec Section 08710 Finish Hardware: The following hardware sets have been revised: #4 – door 147AA removed; #15 – door changed to B172B; #15A – door material changed to AL from HM; #26B – "smoke" label added to set; #27 – Door 113A removed; #30 – removed door C11A; added #32 for door C11A; #34 – removed door P100A; added #34A for door P100A; #46A – door height and hinge height changed; #49 – door heights changed; #51A – removed door G204A; #52 – added door G204A; #79 – removed door G203B; #82 – door number changed; # 95 – added door P100C; #102B – added fire rating to door and revised hardware; #112 – door size revised; #113 – added door EEC; added #115 for door B113A; added #116 for door B147AA.

4. Spec Section 09640 Wood Flooring and 09642 Wood Athletic Flooring: Action Floor Systems; Action Pro Air System has been added as an acceptable manufacturer.

5. Spec Section 09900 Painting: Revise paint color P-12 to A1144 Real Teal.

6. Spec Section 10432 Exterior Identification Letter Signage: 2.2/C Font: Arial. Color: Dark Bronze.

7. Spec Section 10505 Metal Lockers: Revise section 2.4/C/3 to read - [Type 7]: 12" wide x 15" deep x 72" high, single tier. Refer to drawings.

8. Spec Section 12494 Roller Window Shades: Revise section 2.2/A/4 to read - Control System: Crank mechanism, five foot long minimum handle, removable; section 2.2/B/1 to read - Draper Shade & Screen Co., Inc.; Motorized Flexshades; add 4.1 schedule (attached).

9. Spec Section 12900 Loose Furnishings (Room Schedule): Revised furnishings called out in Masonry Lab B146 and related support spaces and revised any reference to "Auto Collision" to "Masonry."

10. Spec Section 11450 Appliances: Revise section 2.1/L to read - Science Prep Room Dishwasher (S11): Built-in dishwasher, Energy Star compliant, stainless steel tub, quiet package, hard food disposer, ADA compliant.
    i. GE, Model GLD4408RWW (white)
    ii. Frigidaire, Model FDB2410HI (white)
    iii. Whirlpool, Model GU3100XTV(white)

11. Spec Section 15561, Direct Fired Heating & Ventilating Units, Delete entire Section from this project.

12. Spec Section 15562, Indirect Fired Heating & Ventilating Units, Revise section 1.2A. to read "MAU-1 and MAU-2"

13. Spec Section 15852, Paint Booth System, Delete entire Section from this project.

14. Spec Section 15853, Welding Exhaust System, Delete entire Section from this project.

15. Spec Section 16120, Conductors and Cables, Revise section 2.1 and 3.4. Encore wire is approved for this project. Conductor Splices: Not permitted unless specifically noted on construction drawings.

16. Spec Section 16461, Dry Type Transformers, Revise section 2.2 and 2.3. High efficiency dry type transformers, type CSL-3 are required for this project.

17. Spec Section 16555 Stage Lighting has been replaced in its entirety due to various changes.

DRAWINGS

CIVIL

1. Sheet C-102: the location and typical section of the construction trailer stone pad has been added. The area of the trailer stone pad shall be restored to a lawn area upon completion of construction. The access route to the stadium will be maintained as a stone pavement in accordance with the current "stone pavement section..." the proposed 8' high construction fence and 16' double swing gate shall be installed as per A1 stage phase plan along the south side of the construction trailer stone pad. A 16' double swing gate will not be installed across the Glendora Avenue entrance to the stadium access stone pavement. See sketch C-1.

STRUCTURAL

1. Sheet S-103: Revised Area 'C' Masonry Lab slab-on-grade work.

2. Sheet S-111: Revised Area 'C' Masonry Lab roof framing.

3. Sheet S-116: Revised Area 'H' roof framing and added new section cuts.

4. Sheet S-513: Revised Sections D1, E6, and D6.

5. Sheet S-514: Added Sections B4, B5, and B6.

6. Sketch S072010-01: Revised lintels in Area 'B'/Roof Framing Plan along South Wall.

7. Sketch S072010-02: Revised section B6/S-502. Ref: Masonry Lab revisions.

8. Sketch S072010-03: Added Section D2/S-511 – Firewall Portal Detail

ARCHITECTURAL

1. Sketch A-1: revised fascia detail at SW corner only of Gymnasium P101. Fascia design at this location reflects tapered insulation and roof drain design where gymnasium roof meets Perkin's Lobby's east wall.

2. Sheet G-001: Fire extinguisher tag 'FE' changed to 'FEC' on east wall of B100M; Class C rating for fire extinguishers in Masonry Lab B146, no longer needed, due to room type change. Both fire extinguishers in the room will be type 'ABC'; Fire extinguisher tag 'FEC' in lobby G001 has moved to correct location on outside of the north wall of Concessions G104. See sketch A-10; Fire extinguisher and fire extinguisher tag 'FE' added to G104. See sketch A-10; Fire extinguisher and fire extinguisher tag 'FE' added to G100. See sketch A-10.

3. Sheet G-002: Fire extinguisher cabinet tag 'FEC' added for fire extinguisher cabinet on south wall of Corr. C24, outside of room P201. See sketch A-11; Fire extinguisher tag 'FE' added for fire extinguisher in Control Room B248. See sketch A-11; Fire extinguisher cabinet tag 'FEC' added for fire extinguisher cabinet on north wall of corr. C20, outside of classroom B205. See sketch A-11; Fire extinguisher cabinet tag 'FEC' moved from south wall of Corr. C20, outside of B210, to correct location at top landing of stair 2STB. See sketch A-11; Fire extinguisher tag 'FE' moved from Life Skills P218A to Life Skills Lab. P218. See sketch A-11.

4. Sheet AD-101: Sheet Keynote 31 now reads: "Existing wood athletic flooring to remain. Refinish under Alternate no. A-7."; Sheet Keynote 32 now reads: "Remove existing VCT flooring. Clean floor of adhesives to receive floor finish as scheduled."; Existing bleachers in Existing Gymnasium G100 will be removed. Sheet keynote 35 added reads: "Remove existing bleachers and accessories."; Sheet Keynote #2, at existing entry door to existing staff restroom/shower, changed to Sheet Keynote #3; Demolition work of Existing gym is included in alternate #A-1. Sheet title updated.

5. AD-102: Sheet Keynote 3 now reads: "Remove 7'-4"H portion of wall to accommodate new door and frame. See plan sheet A-116."; Demolition work of Existing gym is included in alternate #A-1. Sheet title updated.

6. A-102: Dimensions have been revised in room B148. See sketch A-9.

7. A-104: One (1) Chinning bar added to north-west wall of Auxiliary Gym B156. See sketch A-13.

8. A-105: Brick veneer on the north wall of B169 has been labeled as wall type 11A. See sketch A-18.

9. A-106: Wall section marker A5/A-304, at north exterior wall of Mech. B159, has been mirrored to accurately correspond with wall section A5/A-304.

10. A-106: Room B159 Mechanical room. Fire extinguisher has been relocated from behind door to just south of GWH-1.

11. A-107: Two (2) chinning bars added to Gymnasium P101 at south and north walls. See sketch A-14; Wall section marker A2/A-312 has been removed from elevator 2. The enlarged plan and section of this elevator is now shown on sheet A-403; In Gymnasium P101, the rectangles shown at telescopic bleachers have been referenced as scorers tables 12660.B. There is now a total of three scorers tables in Gymnasium P101.

12. A-109: Sheet keynote 17 placed at south-east wall of corridor G00. See sketch A-15.

13. Sheet A-113: Detail C2/A-504 created for expansion joint at intersection of auditorium and mechanical room 242. See sketch A-22.

14. Sheet A-114: Shaft 'A' - Walls of Drama Storage B155, below, are to extend up through Shaft 'A' and up to the deck above. Louver 'LV4', in shaft A has shifted 4'-0" to accommodate extension of drama storage room walls. See sketch A-12. North exterior elevation has also been updated to reflect this change.

15. Sheet A-123: Rooms B100G and B100J separating wall has been revised. Key note 13 has been revised. See sketch A-7.

16. Sheet A-307: Wall Section A3 has been updated. Refer to Sketch A-8.

17. Sheet A-403: Rooms B100G and B100J dimensions have been revised. See sketch A-6; Enlarged plans and sections of elevators 1 and 2 have been added. See sketches A-20 and A-21.

18. Sheet A-407: Two ADA seating areas have shifted north and south respectively. See sketch A-16 for which two locations. The two seats adjacent to the ADA seating areas have been moved to the opposite side of the ADA seating areas. A total of four seats have been moved.

19. Sheet A-502: Detail B5 has been revised to show CMU behind metal panels. See sketch A-19.

20. Sheet A-504: Roof access ladder details have been added. See sketch A-17.;

21. Sheets A-601 and A-602: Sheets in their entirety have been reissued; revisions are as follows, but not limited to: Additional column has been added to schedule calling out the door frame depth; The jamb width of frame 'type 3' has been changed to 2"; Frame 'type 4' has been added; Remarks 9 through 12 have been added; For the following doors remark 6 has been removed and remark 9 added: G001B, G001D, G01B, G02B, G100A, G100B, G100C, G100AA, G100A1A, G100CA, G100C1A, G100DA, G101A, G101BA, G102A, G102BA, G103A, G104A, G105A, G105AA, G106A, G106AA, G107A, G01C, G02C, G202A, G203A, G203B, G204A, G204B, G205A, G206A, and G207A; For the following doors remark 7 has been removed and remark 10 added: G100A, G100B, G100C, G100AA, G100CA, and G107A; All doors with a fire label rating shall receive remark 1; The following doors were missing from the schedule and have been added: B100D1A, B169B, EEC, G01A, G104C, P001C, P100KA; the following doors have been revised in one way or another (please compare to door schedules in the bid set): B100A, B11CA, B113A,

B116B, B118B, B118AA, B118AB, B135A, B146F1, B147AA, B147BA, B147CA, B152A, B152B, B154B, B154B1, B154C, B154C1, B158A, B158AA, B158BA, B162F, B162DD, B162DE, B162DF, B162GA, B162HA, B162JA, B165A, B169AA, B169AB, B171A, B172A, B172B, B173A, B173B, C01A, C01B, C01C, CRTA, CRTB, DE1, G00B, G00C, G00D, G00E, G02A, G100BA, G104B, C11A, C12A, C13A, P001B, P001C, P100A, P100B, P100MA (was listed as C12A), P103CA, P115AA, P115EA, B210AA, B210AB, B229AA, B237A, B247A, G204A, P211BA, P211EA, P212A.

22. A-603 verbal clarification: Details B3/A-603, A2/A-603, and A1/A-603, the reference keynote pointing to the steel beam should be '05100.A02', not '05500.A02'; At detail B1/A-603 reference keynote '08411.A03' at aluminum frame should be reference keynote '08520.A'; At detail C4/A-603 sheet Keynote #4 is in reference to the dimension of the steel door frame; Detail A3/A-603 reference keynotes have been corrected. See sketch A-3.

23. A-604 verbal clarification: Detail C4/A-604 sheet keynotes added. See sketch A-3; At detail A3/A-604 reference keynotes have been corrected. See sketch A-3.; Detail D1/A-604, thickness of board insulation (04810B.H) has changed from 1" to 2".

24. A-605 verbal clarification: Details C4/A-605, E4/A-605, B1/A-605, and D1/A-605 reference keynote '04810B.A' should be '04810B.B'.

25. A-606 verbal clarification: Details B5/A-606, C5/A-606, B4/A-606, D1/A-606, and E1/A-606, reference keynote '08411.C' should be 08110.A' for steel frame.; Details A3/A-606, B3/A-606, C3/A-606, and D3/A-606, thickness of semi-rigid blanket insulation should be 3". Not 1.5".; Detail E3/A-606 semi-rigid blanket insulation removed from detail.;

26. A-607 verbal clarification: Details E3/A-607 and D3/A-607 steel door frames are 10 3/4" deep, not 8 3/4".; Head detail #68 added to sheet A-607. See sketch A-4.

27. A-608 verbal clarification: Detail A4/A-608 thickness of semi-rigid blanket insulation should be 3". Not 1.5".; Detail C5/A-608 reference keynotes are now corrected. See sketch A-4.; At jamb details D4/A-608, A1/A-608, and B1/A-608 the sill below the coiling door to extend 4 1/8" beyond the face of the cmu wall. See sketch A-4.

28. A-609 verbal clarification: Details B3/A-609, C3/A-609, A2/A-609, and B2/A-609 all cmu dimensions should call out a length of 16" not 816".; At jamb detail A5/A-609 the sill below the coiling door to extend 4 1/8" beyond the face of the cmu wall. See sketch A-4.; Jamb detail #61 added to sheet A-609. See sketch A-5.

29. Sheets A-105 and A-403: The wall between rooms B100G and B100J has been rotated and shifted to make room for the edge of the overhead coiling door in room B100J. New dimensions have been given. See sketch A-6 for floor plan changes, and sketch A-7 for reflected ceiling plan changes.

30. Sheet A-307: Wall section A3/A-307 has been revised. See sketch A-8.

31. Sketch A-9: Wall type W03 added in NE corner of room B148 to create chase behind casework for overflow drain piping.

32. A-122: The acoustical panel ceiling in the following rooms shall now be 10'-0" a.f.f. instead of 9'-0": Masonry Office B146B, Tool Crib B146A, Student Tool Storage B146E, Masonry Male Changing B146F, Masonry MRR B146F1, Masn/Plumb WRR B154B1, Plumb MRR B154C1, Masonry/Plumb Women Changing B154B, Plumbing Male Changing B154C. No sketch/drawing issued.

33. A-104: Revisions to Masonry Lab and related changing rooms. Entire sheet issued.

34. I-103: Revisions Masonry Lab and related accessory rooms. Entire sheet issued.

35. I-131: Revisions to Masonry Lab and related changing rooms. Entire sheet issued. .

LANDSCAPE

1. Sheet L-101: The L-101 included in the bidding documents was not the correct version. Included in this addendum is the most recent version.

PLUMBING

1. Sheet P-101, Underfloor Overall Plumbing Plan, see sketch P-1 for revised sanitary sewer piping serving the Masonry Lab and the deletion of Oil Interceptor OI-1.

2. Sheet P-102, First Floor Plumbing Plan Area A, see sketch P-2 for revised routing of 8" OFD from Area C.

3. Sheet P-104, First Floor Plumbing Plan Area C. Drawing has been reissued for the new Masonry Lab, revising the natural gas piping sizes and rerouting of the 8" OFD.

4. Sheet P-105, First Floor Plumbing Plan Area D, see sketch P-3 for revised routing of 8" rainwater conductor and overflow drain from the second floor.

5. Sheet P-106, First Floor Plumbing Plan Area E, see sketch P-4 and P-5 for revising the sizing of the natural gas line.
6. Sheet P-113, Second Floor Plumbing Plan Area D, see sketch P-6 for added roof drain and overflow drain for the Stage Area Roof and associated piping.

7. Sheet P-401, Enlarged Kitchen Plan, see sketch P-7 for revised natural gas pipe sizes.

8. Sheet P-601, Plumbing Schedule, see sketch P-8 for revised Plumbing Fixtures.

9. Sheet P-606, Plumbing Isometric, see sketch P-9 for revised sanitary and sanitary vent piping for new Masonry Lab.

10. Sheet P-608, Water Riser Diagram, see sketch P-10 for revised water piping for new Masonry Lab.

11. Sheet P-614, Natural Gas Riser Diagrams, Drawing has been reissued for the pipe sizes that have been revised.

MECHANICAL

1. Sheet M-103, First Floor Mechanical Plan Area C, Drawing has been reissued for the new Masonry Lab.

2. Sheet M-405, Mechanical Sections, Drawing has been reissued for the new Masonry Lab.

3. Sheet M-602, Mechanical Schedules, see sketch M-1 for the revised Exhaust Fan Schedule.

4. Sheet M-603, Mechanical Schedules, see sketch M-2 for the revised Diffuser Schedule and addition of the Air Cleaning Unit Schedule.

5. Sheet M-604, Mechanical Schedules, see sketch M-3 for the revision to the Makeup Air Unit Schedule.

6. Sheet M-720, Control Diagram, added MAU-2 to Diagram, no sketch issued.

7. Sheet M-721, Control Diagram, Drawing deleted from the project.

ELECTRICAL

1. Sheet E-103, First Floor Lighting, Area C, no sketch provided:
   a. Remove the extraneous keynote tags #3 and #4 (without leaders) shown on the left side of Masonry Lab B146.
   b. Added sheet keynote #17 tag to the two (2) type "FB" light fixtures located within Masonry Storage, B146D.
   c. Added sheet keynote #17 to read as follows: "Suspend fixtures within area 14'-0" minimum to bottom of fixture and locate up between joists.

2. Sheet E-104, First Floor Lighting, Area D: See sketch E-072010-01 for additional sheet keynote #35 which has been added to the plans and shifted some wall-mounted items to reduce conflict with rigging and stage curtains.

3. Sheet E-112, Second Floor Lighting Plan Area D: Added a 4-way light switch at the top of the stairs within Mechanical Room #B249 on the non-hinged side of door for control of lighting upon entering room from stairs. No sketch issued.

4. Sheet E-115, First Floor Power Plan Area A: See sketch E-072010-03 for location of combination motor starters for MAU-1 and MAU-2 in electrical closet B145.

5. Sheet E-117, Masonry Lab Revisions – Adjusted layout of electrical devices, removed electrical devices associated with previous Auto Collision Lab. Adjusted electrical to accommodate mechanical revisions. Added devices associated with Masonry Lab equipment. Entire drawing issued.

6. Sheet E-401, Enlarged Electrical Plans: See sketch E-072010-04 for location of combination motor starters for MAU-1 and MAU-2 in electrical closet B145.

7. Sheet E-506, Electrical Details. Changed APS drawing number in title block to match sheet number and removed the "E" symbol and description under the wire legend on the drawing that was not used on this drawing. No sketch issued.

8. Sheet E-506A, Electrical Details sheet added to project. Entire drawing issued.

9. Sheet E-604, Lighting Fixture Schedule: See sketch E-072010-02 that shows the changes to the exit signs to clarify where wireguards are to be provided.

10. Sheet E-609. Equipment Connection Schedule: See sketch E-072010-05 for removal of equipment EF-74 thru EF-77 and MAU-3. Revised equipment MAU-2. Additional Equipment ACS-1 thru ACS-6.

11. Sheet E-612, Panelboard Schedule PPJ: See sketch E-072010-06 for load and breaker revisions associated with Mechanical equipment revisions.

12. Sheet E-614, Panelboard Schedule RP2: Removed circuit RP2-58 associated with electrical devices now removed in masonry lab. Now spare breaker. No sketch issued.

13. Sheet E-617, Panelboard Schedule GP12: Added 20A/1P breakers in spaces 34,35, and 36 for constant circuits for stage lighting (front of house lighting) and wall pockets shown on sheet E-506A. Entire drawing issued.

14. Sheet E-617, Panelboard Schedule GP9: Revised breaker size and load for Air Compressor AC-1. Panelboard Schedule GP10: Revised schedule to reflect removal of equipment associated with previous Auto Collision Lab and the addition of equipment associated with Masonry Lab. Entire drawing issued.

FIRE ALARM

1. Sheet F-501, Fire Alarm Details. Added interconnection to the fire alarm system for the emergency lighting within the auditorium to be energized to 100% output and the muting of the various sound systems during an alarm (gymnasiums, student dining, auditorium). See sketch F-072010-01 for changes.

TECHNOLOGY

1. Sheet T-103: Masonry Lab revisions - Removed (2) 2-port data outlets from the west wall and relocated wall mounted motion detector from the west wall to the east wall. See sketch SK-T103-A.

END OF ADDENDUM NO. 1

1. Interior and exterior finished unit masonry appearance shall exceed the finish requirements of ASTM C90-02, to require repair of chipped or broken units that have visible defects from a distance of ten (10) feet under diffused permanent lighting. Repair finish texture to be similar to unit masonry face. Sizes of chipped and broken masonry units shall not exceed ½ inch in any direction.
2. Interior and exterior finished unit masonry appearance shall be required to conform with quality standards set by the approved masonry sample panels.

2.2 CONCRETE MASONRY UNITS (GREY BLOCK CMU'S) AND DECORATIVE CONCRETE MASONRY UNITS

A. Regional Materials: Provide CMUs that have been manufactured within 500 miles of Project site from aggregates and cement that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles of Project site.

B. Shapes: Provide shapes indicated and as follows:

1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
2. For ends of sills and caps and for similar applications that would otherwise expose unfinished surfaces, provide units without cores or frogs and with exposed surfaces finished.
3. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.
4. Provide bull-nose units for outside corners, unless otherwise indicated.

C. Concrete Masonry Units (Grey Block Units): ASTM C 90-02.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2,800 psi.
2. Weight Classification: Medium weight, unless otherwise indicated.
3. Initial Rate of Absorption: 15 pcf.
4. Approved Manufacturers:

   a. VanPoppelen Bros; Mileau Recycled Series CMU (40% recycled postconsumer; regional materials).
   b. Beavertown Block Co., Inc. (1/2 preconsumer + postconsumer = 20% minimum; regional materials).
   c. Chas Svec, Inc. (1/2 prconsumer + postconsumer = 33% minimum; regional materials).
   d. Koltcz Concrete Block Co.; Slaglite II (1/2 preconsumer + postconsumer = 36% minimum; regional materials).
   e. R.W. Sidley, Inc. (1/2 preconsumer + postconsumer = 20% minimum; regional materials).
   f. Medina Supply Company – Green Block (1/2 preconsumer + postconsumer = 20.8% minimum; regional materials)

D. Decorative Concrete Masonry Units: ASTM C 90.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 1,900 psi.
2. Density Classification: Medium weight.
3. Size (Width): Manufactured to dimensions specified in "CMUs" Paragraph.
4. Pattern and Texture:

2.2 MANUFACTURERS

A. Acceptable Manufacturers:

1.	Traco	NX-3000 Series
2.	Peerless Products, Inc.	1200 Series
3.	Graham	6000 Series
4.	Capitol Aluminum and Glass	325 SS
5.	Wausau Window and Wall Systems	3250 Series
6.	Manko Window Systems	Model 3527
7.	Old Castle – Moduline (Vistawall)	24E
8.	**Linfex Inc.**	**L1000T Series**

2.3 ALUMINUM WINDOWS

A. Window Operation: Comply with functions indicated on Drawings.

B. Window Grade: Architectural Window AW 60 or AW 80, noted in Section 1.3.

C. Glazing: Insulated glass unit with additional hinged clear tempered glazing panel to protect blinds.

1. Vent and fixed triple glazing: Neoprene gasket; ¾ or 1 inch insulating glass; internal EPDM gasket; (blinds;). 1/4 inch interior lite in flexible PVC gasket in butt-hinged panel secured with tamper-proof screws, aluminum hinge opened with a tamper proof wrench.

a. Refer to Section 08800 for Glazing.

D. Construction: Thermally improved.

E. Aluminum Window Members: Aluminum extrusions not less than 0.125 thickness at any location for main frame and sash members or window design to incorporate multi-chamber hollow construction in both the sash and frame utilizing euro-groove technology.

2.4 MATERIALS

A. Aluminum extrusions: produced from commercial quality 6063-T5 alloy; free from defects impairing strength and durability.

1. Aluminum extrusions not less than 1/8 inch thickness at any location for main frame and sash members, or window design to incorporate multi-chamber hollow construction in both the sash and frame utilizing euro-groove technology.

B. Hardware as required for type of window operation and including, but not limited to the following:

1. Concealed stainless steel hinges conforming to AAMA 904-01 to rotate vent outward on [horizontal][vertical] axis; white bronze cam handles and strikes conforming to AAMA 901-96 and multi-point lock; stainless steel limit arm with release key.

C. Weatherstripping: Secured in extruded ports; double rows on sash perimeters: rigid PVC weatherseal in one side of the vertical stiles, one flexible thermoplastic rubber bulb+flap seal in bottom sash lift rail in contact with exterior frame sill, and pile conforming to AAMA 701-92 with polypropylene center fin in the remaining locations.

1. Manufacturers: Subject to compliance with requirements, provide products of one of the following:

   a. Aacer Flooring, LLC.
   b. Connor Sports Flooring, LLC.
   c. Horner Flooring.
   d. Robbins Sports Surfaces.
   e. **Action Floor Systems.**

2. Species and Grade:

   a. Stage Thrust: Northern Hard Maple, MFMA grade, and trademarked. Provide third and better grade.
   b. Stage: Prime VG, Finish grade Douglas Fir or Larch. Face of each piece must present a vertical grain appearance.

3. Cut: Plain sawn. For maple and vertical grain (VG) for Douglas Fir or Larch.
4. Thickness: 25/32 inch.
5. Face Width: 2-1/4 inches.
6. Lengths: Random-length strips complying with applicable grading rules.

B. Urethane Finish System: Complete solvent-based, oil-modified system of compatible components that is recommended by finish manufacturer for application indicated.

1. VOC Content: When calculated according to 40 CFR 59, Subpart D (EPA Method 24), as follows:

   a. Finish Coats and Floor Sealers: Not more than 350 g/L.
   b. Stains: Not more than 250 g/L.

2. Finish Coats: Formulated for multicoat application on wood flooring.

   a. Products: Subject to compliance with requirements, provide one of the following:

      1) Basic Coatings, Inc.
      2) BonaKemi USA Inc.
      3) Dura Seal, Sherwin-Williams Company (The).
      4) Ecolab Inc., Huntington Brand.
      5) Polo-Plaz Coatings, National Coatings Company.

3. Floor Sealer: Pliable, penetrating type.

C. Wood Filler: Compatible with finish system components and recommended by filler and finish manufacturers for use indicated. If required to match approved Samples, provide pigmented filler.

2.2 ACCESSORY MATERIALS

A. Wood Underlayment: ¾" (19mm) CDX grade plywood.

B. Vapor Retarder: ASTM D 4397, polyethylene sheet not less than 6.0 mils thick.

C. Asphalt-Saturated 15 lb. Felt: ASTM D 4869, Type II. Between plywood underlayment and finished strip flooring.

1.6 PROJECT CONDITIONS

A. Conditioning period begins not less than seven days before sports-floor assembly installation, is continuous through installation, and continues not less than seven days after sports-floor installation.

1. Environmental Conditioning: Maintain an ambient temperature between 65 and 75 deg F and relative humidity planned for building occupants, but not less than 35 percent or more than 50 percent, in spaces to receive sports-floor assemblies during the conditioning period.
2. Wood Conditioning: Move wood components into spaces where they will be installed, no later than beginning of the conditioning period.

a. Do not install sports-floor assemblies until wood components adjust to relative humidity of, and are at same temperature as, spaces where they are to be installed.
b. Open sealed packages to allow wood components to acclimatize immediately on moving wood components into spaces in which they will be installed.

B. After conditioning period, maintain relative humidity and ambient temperature planned for building occupants.

C. Install sports-floor assemblies after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following: Basis of Design: Robbins Air Channel Star as manufactured by Robbins Sports Surfaces.

1. Wood, Athletic-Flooring Assemblies:

a.	Aacer Flooring, LLC.	Anchored Power Sleeper
b.	Conner Sport Court, Intl.	Anchored Rezill Sleeper Div.
c.	Horner Flooring	Safe Laminated Sleeper Subfloor
d.	**Action Floor Systems**	**Action Pro Air**

2.2 MAPLE FLOORING

A. Strip Flooring: Northern hard maple (Acer saccharum), kiln dried.

1. Grade: Second & Better, unless otherwise indicated; third grade for areas under stacked portion of telescoping bleachers.
2. Cut: Flat grain cut.
3. Lengths: Nominal 15 to 96 inches complying with MFMA grading rules, unless otherwise required for patterns indicated.
4. Matching: Tongue and groove, and end matched.
5. Backs: Channeled (kerfed) for stress relief.
6. Thickness: 25/32 inch.
7. Face Width: 2-1/4 inches.

3.6 PAINT SCHEDULE

A. Items to be painted include, but are not limited to the following.
1. Interior
a. Hardwood trim: Stain.
b. Steel doors and frames: Paint.
c. Concrete and Masonry (walls): Paint.
d. Gypsum board (walls): Paint.
e. Gypsum board (ceilings and soffits): Paint.
f. Vinyl (floor): Paint.
g. All miscellaneous steel items: Paint.
h. All mechanical and electrical items under paragraph 3.3 of this section: Paint.
i. Pipe and Tube Railings: Paint.
j. Exposed steel structure as noted in room finish schedule: Paint.
k. Concrete floors: Paint (where specified).
2. Exterior
a. Hollow metal doors and frames: Paint.
b. Lintels: Paint.
c. Exterior plaster soffits: Paint.
d. Bollards and Corner Protector Steel: Paint.
e. Gas meter setting, excluding prefinished items: Paint.

3.7 COLOR SCHEDULE FOLLOWS

A. General: Provide products from one of the specified manufacturers in sections 2.3 and 2.4. Match colors to color schedule.

B.

09900 Painting Schedule				
Product	Manufacturer	Color Number	Color Name	Remarks
P-1	ICI	A0077	Ivory Fresco	Field wall color
P-2	ICI	A2016	Dark Secret	Black
P-3	ICI	A0057	Crisp Linen	White
P-4	ICI	A1831	Old Monterey	Gray
P-5	ICI	A1392	Blazer Blue	Blue
P-6	ICI	A1382	Atwood Lakes	Lt. Blue
P-7	ICI	A0987	Inchworm	Green
P-8	ICI	A1616	Stage Fright	Purple
P-9	ICI	A0683	Glorious	Yellow
P-10	ICI	A0514	Woodley	Orange
P-11	ICI	A0291	Crimson Red	Red
P-12	ICI	A1144	Real Teal	Aqua
P-13	ICI	TBD	TBD	To match red brick
P-14	ICI	TBD	TBD	To match buff brick
P-15	ICI	A1768	Highland Plains	Interior metal doors

3.8 [AAG NOTE: EXAMPLE ONLY. MODIFY PER PROJECT. USE SCHEDULE]

C. Anchors and Inserts: Use nonferrous metal or hot-dipped galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Furnish inserts, as required, to be set into masonry work.

1. Letters to be offset, stud mounted.
2. Flat cut metal letters to have tapped holes for stud insertion, and are to be stud welded.

2.2 DIMENSIONAL LETTERS

A. Cut Metal Letters: Form individual letters by cut metal. Produce characters with smooth, flat faces, sharp corners, and precisely formed lines and profiles. Comply with requirements specified for finish, style and size.

B. Text: As indicated on drawings.

C. Font: **Arial; Color: Dark Bronze.**

D. Size: As indicated on drawings.

E. Thickness: 1/4 inch.

2.3 FINISH

A. General: Comply with NAAMA "Metal Finishes Manual" for finish designations and applications recommendations.

B. All exposed aluminum surfaces shall receive a baked-enamel finish.
1. Color: **Dark Bronze**.

2.4 APPROVED MANUFACTURERS

A. Manufacturers:

1. A.R.K. Ramos;
2. ANDCO Industries Corp.
3. ASI Modulex;
4. VOMAR Products, Inc.
5. Gemini

PART 3 - EXECUTION

3.1 INSTALLATION

A. Securely install in location indicated on the drawings in accordance with manufacturer's written instructions and recommendations.

1. Install letters level, plumb and at heights indicated, with surfaces free from distortion or other defects in appearance.
2. Mount letters flush with wall surface.

b. Finish: Match lockers.

2. Continuous Sloping Tops: Fabricated from cold-rolled steel sheet, manufacturer's standard thickness, but not less than 0.0329 inch thick.

a. Provide at corridors only:

1) Closures: Hipped-end type.
2) Retain first subparagraph below where two runs of metal lockers meet at right angles.

b. Sloped top corner fillers, mitered.

3. Flat Finished Tops: Fabricated from cold rolled steel sheet, manufacturer's standard thickness, but not less than 0.0528 inches thick.
a. Provide at classrooms only.

4. Recess Trim: Fabricated from 0.0428-inch- thick, cold-rolled steel sheet.
5. Filler Panels: Fabricated from cold-rolled steel sheet, manufacturer's standard thickness, but not less than 0.0329 inch thick.
6. Boxed Finished End Panels: Fabricated from 0.0528-inch- thick, cold-rolled steel sheet.
7. Numbering Plates: Equip each metal locker with identification plate.

a. Numbers shall commence with one (1) and continue consecutively from left to right (facing the lockers) for single tier lockers.
b. At double tier lockers, numbers shall progress from left to right (facing the lockers) with odd numbers on top tier and even numbers on the bottom tier.

K. Finish: Baked enamel.

1. Color(s): Match architects paint colors.

2.4 ALL-WELDED ATHLETIC METAL LOCKERS

A. Products:

1. All-Welded, Athletic Metal Lockers:

a. Lyon Workspace Products; Integrated Frame All-Welded Lockers.
b. Penco Products, Inc., Subsidiary of Vesper Corporation; All-Welded Lockers.
c. Republic Storage Systems Company; All-Welded Ventilated Lockers.
d. ASI Storage Solutions; Competitor Collection.
e. Superior Lockers; fully framed, all welded athletic lockers.
f. Pinnacle Storage Products; TA-50 welded lockers.

B. Locker Arrangement: **Single tier.**

C. Locker Size:
1. [Type 5]: 12" wide x 12" deep x 60" high, single tier. Refer to drawings.
2. [Type 6]: 18" wide x 18" deep x 60" high, single tier. Refer to drawings.
3. **[Type 7]: 12" wide x 15" deep x 72" high, single tier.** Refer to drawings.

E. Clinic Refrigerator/Freezer (S4): Top freezer; 15 cu. ft. capacity; minimum of two fresh food shelves; two crisp drawers; white:

1. Frigidaire, Model FRT15B3A
2. Kenmore, Model 64522
3. GE, Model GTR16BBSRWW

F. Clothes Washer (S5): Washer: 3.5 cu. ft. top loading super capacity washer with stainless steel wash basket, 17 wash cycles, five wash/spin speed combinations and four levels.

1. GE, Model WJRR4170EWW (white) Basis of Design.
2. Maytag (white) MTW5800TW.
3. Kenmore (white) 28522.

G. Clothes Dryer (S6): 7.0 cu. ft. super capacity with stainless steel drum, four heat selections, eight dry cycles, auto dry thermostat, wrinkle care extended tumble, and adjustable volume on an end-of-cycle signal.

1. GE, Model DRSR483EDWW (white) Basis of Design.
2. Maytag to match Basis of Design (white) MED5801TW.
3. Kenmore to match Basis of Design (white) 68622.

H. Freestanding Range/Oven (S7): 30-inch electric freestanding range with four coil burners; chrome drip bowls; porcelain enamel on steel cooktop surface; lift-up cooktop with support rod; self-cleaning oven; extra-large oven door window; storage drawer; white.
1. Frigidaire, Model FEF354GS
2. Kenmore, Model 94212
3. GE, Model JBP24dmww
4. Whirlpool, Model RF263LXTQ

I. Front loading clothes washer (S8): Washer 4.0 cu. ft. king size capacity front load washer, Energy Star compliant, quiet package, stainless steel wash basket, with power cord and related appurtenances for a full installation.
1. GE, Model WCVH6800J (white)
2. Maytag, MFW9700S (white)
3. Kenmore, 4996 (white)

J. Front-loading Clothes Dryer (S9): 7.0 cu. ft. super capacity electric dryer, Energy Star compliant, front loading, quiet package, with power cord.
1. GE, Model DCVH680EJWW (white)
2. Maytag, MED9700SQ (white)
3. Kenmore, 87872 (white)

K. Copy/Work Room under-counter Refrigerator (S10): 5.8 cu. ft. compact refrigerator, adjustable temperature controls, push button defrost control, adjustable shelves, freezer compartment. Dimensions: 33"h x 23 ½"w x 24-25"d. (must install under ADA counter height).
1. Kenmore 95872, (white) Basis of Design
2. Maytag to match Basis of Design
3. GE to match Basis of Design

L. Science Prep Room Dishwasher (S11): Built-in dishwasher, Energy Star compliant, stainless steel tub, quiet package, hard food disposer, ADA compliant.
1. **GE, Model GLD4408RWW (white)**
2. **Frigidaire, Model FDB2410HI (white)**
3. **Whirlpool, Model GU3100XTV(white)**

ing excessive deterioration or failure of system components when the system is subjected to normal use. Repair or replacement shall include all costs associated with verifying failures, removal of deteriorated or defective products, replacement, testing, transportation, travel, and other expenses related to corrective measures.

1. The warranty period shall be five years from the date of Project Completion Date.

PART 2 - PRODUCTS

2.1 PRODUCTS, GENERAL

A. Refer to Section 01600 – Product Requirements.

2.2 MANUFACTURERS

A. Basis of Design: Design is based on "Mecho/5™ wide bracket" shade system manufactured by MechoShade®, Long Island City, NY www.mechoshade.com, and as follows:

1. Mounting method: Mount directly to structural components as indicated on Drawings.
2. Provide valance to conceal motorized components.
3. Shade Cloth: EcoVeil™ Series 1550, Translucent Weave, 3% O.F.
4. Control system: **Crank mechanism, five foot long minimum handle, removable.**
5. Direction of Roll: Reverse from back of roller.

B. Additional Manufacturers:

1. Draper Shade & Screen Co., Inc.; **Motorized** Flexshades.
   Website: www.draperinc.com

2. Lister Motorized Blinds and Shades
   Website: www.listerupholstery.com

3. Inside Outfitters: SOS Roller Shades
   Website: www.insideoutfitters.com

2.3 ROLLER SHADE FABRICATION

A. Product Description: Roller shade consisting of a roller, a means of supporting the roller, a flexible sheet or band of material carried by the roller, a means of attaching the material to the roller, a bottom bar, and an operating mechanism that lifts and lowers the shade.

B. Concealed Components: Non-corrodible or corrosion-resistant-coated materials.

1. Lifting Mechanism: With permanently lubricated moving parts.

C. Unit Sizes: Obtain units fabricated in sizes to fill window and other openings as follows, measured at 74 deg F:

1. Shade Units Installed Between (inside) Jambs: Edge of shade not more than ¼ inch from face of jamb. Length equal to head to sill dimension of opening in which each shade is installed.

PART 4 - SCHEDULE OF OPENINGS

4.1 SCHEDULE

A. Provide one roller shade at each window or band of continuous windows as indicated. Shades shall break at window mullions. Verify dimensions in field.

LOCATION	ROOM NAME / #	WIDTH	HEIGHT
Area E First Floor	Student Dining B162	(6) 6'-6" 6'-4"	11'-4" 5'-0"
Area D First Floor	Media Room P102	(5) 6'-6"	11'-4"
Area D First Floor	Media Room B169	(5) 6'-6" 8'-4" 8'-8"	11'-4" 6'-4" 6'-4"
Area D Second Floor	Media Room B169	(2) 9'-8 ½", (1) 14'-7" (2) 15'-6", (1) 10'-3 ½"	7'-2" 9'-2"

END OF SECTION

Room	Room Name	Item	Qnty.	Description	Remarks
B146	**Masonry Lab**	**K2**	**4**	**32 gallon waste container**	
		K8	**1**	**32 gallon recycling container**	
		W11	**2**	**Workbench with steel top**	
		W8	**2**	**Flammable storage cabinet**	
		W1c	**1**	**Student work table**	**With (4) vice**
		P4	**1**	**Portable visual display board**	
B146A	Tool Crib	**K14**	**10**	**24"d Storage shelving**	**See note 1**
		W10	**2**	**Heavy-duty storage cabinet**	
B146B	**Masonry Office**	C1e	2	17"-18" high student chair	
		E1aL	1	Teacher and Administrative desk - "L" shaped steel desk	
		E16	1	Task light	
		K1	1	Wastebasket	
		K19	1	Recycling container - small	
B146C	**Plumbing/Masonry Classroom**	B1	3	36"w x 12"d x 29"-30"h steel bookcase	
		C1e	6	17"-18" high student chair	
		C2e	1	17"-18" high student chair	
		D1	1	Student desk - 26"-32" height adjustable desk	
		D2	19	Combination chair and desk unit	
		E3	1	Administrative/teacher desk	
		F1	1	2-drawer vertical file	
		G1	1	Single student computer table - 30"d x 36"w	
		G2	2	Two student computer table - 30"d x 60"w	
		K1	2	Wastebasket	
		K19	1	Recycling container - small	
		R1	1	Pencil sharpener	
		R4	**1**	**Flag, classroom with staff, 16"x24"**	
B146D	**Masonry Storage**	K14	7	24"d Storage shelving	See note 1
B146E	Student Tool Storage				
		K14	22	24"d Storage shelving	See note 1
		K16	8	18"d Storage shelving	See note 1
		W2	1	48"w x 22"d x 66"h tool cabinet	
B146F	**Masonry Male Changing**	K1	1	Wastebasket	
B146F1	**Masn MRR**	K1	1	Wastebasket	

Item	Description	Finish	Approved Mfgr. 1	Approved Mfgr. 2	Approved Mfgr. 3	Approved Mfgr. 4	Bid Pkg.	Remarks
MS-W10	Heavy-duty tall storage cabinet - 48"w x 24"d x 82"h all welded 14 gauge steel storage cabinet with 4 adjustable shelves, 4" high legs, locking, shelf capacity 800-1400 lbs. per shelf, baked enamel or power coat finish.	To be selected from manufacturer's full range	Lyon 1120 Heavy Duty Storage Cabinet Full Height	Cisco-Eagle Heavy-Duty Storage Cabinet, Standard Configuration	Quantum Storage QSC-3IS		12D	
MS-W11	Workbench - 30-34"d x 72"w 30-36"h adjustable height workbench, 1 3/4" thick 12-gauge heavy-duty steel top, adjustable steel channel legs with levelers, welded steel cross members, with stringer and shelf.	To be selected from manufacturer's full range	Lyon 2525A	Stackbin 3505 Series Workbench with steel top	Penco Adjustable height work bench with steel top		12D	

SECTION 15562

INDIRECT-FIRED HEATING AND VENTILATING UNITS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes indirect-fired H&V units MAU-1 and MAU-2:

1. Gas furnace.

1.3 SUBMITTALS

A. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, and methods of field assembly, components, and location and size of each field connection.

1. Mounting Details: For securing and flashing roof curb to roof structure. Indicate coordinating requirements with roof membrane system.
2. Wiring Diagrams: Power, signal, and control wiring.

B. LEED Submittals:
1. Product Data for verification of Prerequisite EA-P2, Minimum Energy Performance, meeting ASHRAE 90.1 2004.
2. Product Data for verification of Credit EA-1, Optimize Energy Performance, exceeding ASHRAE 90.1 2004, by achieving higher efficiencies.

C. Coordination Drawings: Roof-mounted or suspended units mounting details drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:

1. Size and location of roof-top units mounting rails and anchor points and methods for anchoring units to curb or suspending units from structure.
2. Required roof penetrations for ducts, pipes, and electrical raceways, including size and location of each penetration.

D. Startup service reports.

E. Operation and Maintenance Data: For indirect-fired H&V units to include in emergency, operation, and maintenance manuals.

b. Nexans
c. Cerrowire
d. Southwire
e. Encore Wire

2. Connectors for Wires and Cables:

a. AMP Incorporated.
b. General Signal; O-Z/Gedney Unit.
c. Square D Co.; Anderson
d. Ilsco
e. Burndy

3. Modular Wiring Systems

a. Cooper Lighting "MWS"
b. Lithonia Wiring Systems "Reloc"
c. Electro - Connect Wiring

2.2 BUILDING WIRES AND CABLES

A. UL83 listed building wires and cables with conductor material, insulation type, cable construction, and rating as specified in Part 3 "Wire and Insulation Applications" Article.

B. Rubber Insulation Material: Comply with NEMA WC 3.

C. Thermoplastic Insulation Material: Comply with NEMA WC 5.

D. Cross-Linked Polyethylene Insulation Material: Comply with NEMA WC 7.

E. Ethylene Propylene Rubber Insulation Material: Comply with NEMA WC 8.

F. Conductor Material: 98 % conductivity, annealed Copper.

1. Use of aluminum wire or conductors is not permitted.

G. Stranding: Class C, stranded conductor for No. 10 AWG and smaller; Class C, stranded conductor for larger than No. 10 AWG.

H. Minimum conductor size for power and lighting branch circuits shall be #12 awg.

1. For 120 V circuits with homerun over 75 lineal feet, minimum wire size shall be #10 awg.

I. Use of MC cable is not permitted. (Exception - lighting fixture whips above ceiling of 6 ft. or less are permissible.)

J. Use of Modular Wiring Systems for lighting branch circuits may be used in lieu of conduit and wire where permitted by Code and for concealed use only, except for homeruns to panelboards and switch drops.

1. MWS shall be rated for 20 amp circuits, be UL listed, with pin and socket interlocking contacts.
2. Conductors shall be #12 awg, THHN, 600 V, 90 deg C, copper with a separate neutral for each phase conductor.

F. Seal around cables penetrating fire-rated elements according to Division 7 Section "Firestopping."

G. Identify wires and cables according to Division 16 Section "Electrical Identification."

H. All multiwire branch circuits shall not be permitted to share a neutral conductor.

I. Color code conductors per voltage. See Section 16075.

3.4 CONNECTIONS

A. Conductor Splices: Not permitted unless specifically noted on construction drawings.

B. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches (300 mm) of slack.

C. Connect outlets and components to wiring and to ground as indicated and instructed by manufacturer.

D. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.5 FIELD QUALITY CONTROL

A. Testing: On installation of wires and cables and before electrical circuitry has been energized, demonstrate product capability and compliance with requirements.

1. Procedures: Perform each visual and mechanical inspection and electrical test stated in NETA ATS, Section 7.3.1. Certify compliance with test parameters.

B. Correct malfunctioning conductors and cables at Project site, where possible, and retest to demonstrate compliance; otherwise, remove and replace with new units and retest.

END OF SECTION

C. Comply with NFPA 70.

D. High Efficiency Dry-Type Transformers: Department of Energy CSL-3.

E. Sound Levels: NAME ST 1-4 and ANSI C89.1.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Temporary Heating: Apply temporary heat according to manufacturer's written instructions within the enclosure of each ventilated-type unit throughout periods during which equipment is not energized and is not in a space that is continuously under normal control of temperature and humidity.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide transformers by one the following:

1. Cutler-Hammer/Eaton Corp.
2. GE Electrical Distribution & Control.
3. Siemens Energy & Automation, Inc.
4. Square D; Groupe Schneider.
5. ACME Electric, Transformer Division.
6. Powersmiths International Corp.

2.2 TRANSFORMERS, GENERAL

A. Description: Factory-assembled and -tested, air-cooled units of types specified, designed for 60-Hz service.

B. Cores: Grain-oriented, nonaging silicon steel.

C. Coils: Continuous windings without splices, except for taps.

1. Internal Coil Connections: Brazed or pressure type.
2. Coil Material: Copper or aluminum.

D. Enclosure: Class complies with NEMA 250 for the environment in which installed.

E. Sound-Level: NEMA ST 1-4 and ANSI C89.1 standard sound levels when factory tested according to IEEE C57.12.91.

F. Core and coil assembly shall be mounted on vibration pads and bolted to the enclosure.

G. No metal-to-metal contact between the core, coil, and the enclosure.

H. KVA rating shall be as shown on drawings.

2.3 HIGH EFFICIENCY DRY-TYPE DISTRIBUTION POWER TRANSFORMERS (CSL-3)

A. Comply with **NEMA ST20** and list and label as complying with UL 1561.

B. Cores: **Common core insulation transformer built to NEMA ST20.**

C. Windings: One coil per phase in primary and secondary.

D. Enclosure: Indoor, **gravity** ventilated.

1. Core and coil shall be encapsulated with resin compound sealing out moisture and air.

E. Insulation Class: 185 or 220 deg C class for transformers 15 kVA or smaller; 220 deg C class for transformers larger than 15 kVA.

1. Rated Temperature Rise: 150 deg C maximum rise above 40 deg C, for 220 deg C class insulation; 115 deg C maximum rise for 185 deg C class insulation.
2. Temperature rise on transformer case not to exceed 35 deg C rise over ambient at full load.

F. Taps: For transformers 3 kVA and larger, full-capacity taps in high-voltage windings are as follows:

1. Taps, 3 through 25 kVA: Two 5-percent taps below rated high voltage.
2. Taps, 3 through 10 kVA: Two 5-percent taps below rated high voltage.
3. Taps, 15 through 500 kVA: Six 2.5-percent taps, 2 above and 4 below rated high voltage.
4. Taps, 750 kVA and Above: Four 2.5-percent taps, 2 above and 2 below rated high voltage.

G. Energy Efficiency for Transformers Rated 15 kVA and Larger:

1. Complying with NEMA **ST20** efficiency levels.
2. Tested according to NEMA NP 2.

H. K-Factor Rating: Transformers indicated to be K-factor rated **(K-7 minimum)** are listed to comply with UL 1561 requirements for nonsinusoidal load current handling capability to the degree defined by the designated K-factor.

1. Transformer design prevents overheating when carrying full load with harmonic content corresponding to the designated K-factor.
2. Nameplate states the designated K-factor of the transformer.

I. Electrostatic Shielding: Each winding is independently single shielded with a full-width copper electrostatic shield arranged to minimize interwinding capacitance.

1. Coil leads and terminal strips are arranged to minimize capacitive coupling between input and output connections.
2. Shield Terminal: Separate; marked "Shield" for grounding connection.
3. Capacitance: Shield limits capacitance between primary and secondary to a maximum of 33 picofarads over a frequency range of 20 Hz to 1 MHz.
4. Common-Mode Noise Attenuation: Minus 120 dB minimum, 0.5 to 1.5 kHz; minus 65 dB minimum, 1.5 to 100 kHz.
5. Normal-Mode Noise Attenuation: Minus 52 dB minimum, 1.5 to 10 kHz.

J. Wall-Mounting Brackets: Manufacturer's standard brackets for transformers up to 75 kVA.

K. Fungus Proofing: Permanent fungicidal treatment for coil and core.

L. **200% rated neutral, 60 Hz, 10kV BIL.**

M. Maximum No loads losses and minimum efficiency shall comply with the following when tested per NEMA TP-2:

Losses and Efficiencies		
KVA Size	Maximum No Load Losses	Efficiency at 1/6 Load
15	60 watt	97.3
30	100 watt	97.6
45	130 watt	97.9
75	180 watt	98.2
112.5	265 watt	98.4
150	340 watt	98.5
225	460 watt	98.6
300	565 watt	98.7
500	860 watt	98.8
750	1220 watt	98.9

2.4 CONTROL AND SIGNAL TRANSFORMERS

A. Units comply with NEMA ST 1 and are listed and labeled as complying with UL 506.

B. Ratings: Continuous duty. If rating is not indicated, provide capacity exceeding peak load by 50 percent minimum.

C. Description: Self-cooled, 2 windings.

2.5 FINISHES

A. Indoor Units: Manufacturer's standard paint over corrosion-resistant pretreatment and primer.

2.6 IDENTIFICATION DEVICES

A. Nameplates: Engraved, laminated-plastic or metal nameplate for each distribution transformer, mounted with corrosion-resistant screws. Nameplates and label products are specified in Division 16 Section "Identification for Electrical Systems."

SECTION 16555

STAGE LIGHTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes equipment for stage lighting systems including fixtures, lamps, dimmers, controls, cabinets, and distribution components.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show fabrication and installation details for dimmer racks showing arrangements, characteristics, and circuit assignments of various modules. Include elevation views of front panels indicating devices and controls. Include illustrations and dimensioned outline drawings.

1. Wiring and Riser Diagrams: Power, signal, and control wiring. Show connections and circuit and channel assignments.
2. Equipment Legend: Show a unified system of designations for lighting instruments, panels, dimmers, circuits, and equipment.

C. Qualification Data: For Installer and manufacturer.

D. Coordination Drawings: Floor plans showing dimensioned layout, required working clearances, and required area above and around dimming equipment where piping and ducts are prohibited. Show rack layout and relationships between components and adjacent structural and mechanical elements.

E. Operation and Maintenance Data: For fixtures, distribution components, software operating manuals and controls to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1 Section "Closeout Procedures," include the following:

1. Control-Console Introduction:

   a. Descriptions of controls and features.
   b. Software instruction manuals.
   c. Setup requirements for unit and related equipment.
   d. Default settings.
   e. Maintenance procedures and schedules.

2. Control-Console Operation:

a. Elementary on-off operation.
b. How to set cues manually.
c. How to patch dimmer to channels electronically.
d. How to operate two-scene presets manually.
e. How to operate fundamental memory.
f. How to set and record simple cues.
g. How to recall, playback, and revise cues and scenes.
h. How to use sub-masters, split cues, store and recall programs, set up special effects, and print out cues.
i. How to set up and run system for a typical event or performance.
j. How to get help.

3. Dimmer Panel:

a. Descriptions of features, functions, and safety and security precautions.
b. Descriptions of dimmer module features, dipswitches, non-dim functions, and racking systems.
c. How to check loads against dimmer capacity ratings.
d. How to set basic power-in and power-out connections.
e. Basic maintenance requirements including need for qualified electrician for internal maintenance; basic maintenance schedule; techniques for keeping terminals properly tightened, filter screens clean, and overheat sensors checked; and techniques for performing other required servicing.
f. How to get help.
g. Description of warranty.

4. System Troubleshooting: Procedures for common software, programming, control console, dimmer bank, and distribution system problems; include information on how to get help.
5. Instruct the owner in the proper usage of each type stage lighting fixtures including re-lamping procedures.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An employer of workers trained and approved by manufacturer.

B. Dimming Equipment Manufacturer Qualifications: The system manufacturer shall provide emergency maintenance repair support within 24 hours' maximum response time and shall provide a 24 hour technical service contact number.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. Comply with NECA 1.

E. Comply with NFPA 70.

1.5 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Dimmer Modules – (1) Additional dual module.

2. Lamps: One for every 10 of each ANSI C78 Series, type, and rating installed. Furnish at least one of each type.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. It is the intent of this specification to establish a level of performance based on standards set by USITT and standard stage lighting practice. Manufacturers offering multiple level of products shall provide those products that meet the maximum requirement of the specification. Determination of acceptability shall be at the sole discretion of the architect or his/her representative.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified. Electronic Theatre Controls (ETC) was used as Basis of Design.

2.2 LIGHTING FIXTURES AND ACCESSORIES

A. Manufacturers:

1. Strand Lighting.
2. Electronic Theatre Controls (ETC).
3. Leviton Colortran.
4. Lighting & Electronics.
5. Altman Stage Lighting.

B. General Lighting Fixture and Accessory Requirements:

1. Listed under UL 1573.
2. Fixtures: Equipped with pigtail, yoke with pipe C- clamp, safety cable, and color filter holder.
3. Metal Parts: Free of burrs, sharp corners, and edges.
4. Sheet Metal Components: Steel, unless otherwise indicated. Form and support to prevent warping and sagging.
5. Fixture Doors and Their Internal Access: Smooth operating, free of light leakage under operating conditions, and arranged to permit re-lamping without use of tools. Doors, lenses, diffusers, and other pieces arranged to prevent accidental falling during re-lamping and when secured in operating position.
6. Pigtail: Factory wired, 36-inch-long, 3-wire cord and stage pin connector assembly (grounded stage pin) with cord encased in woven fiberglass or silicone tubing.
7. Lamp Sockets: Re-lamp without disturbing alignment or focus adjustment.
8. Fixture Ventilation Openings: Baffled against light leaks.
9. Fixture Operating Controls and Handles: Thermally insulated.
10. Lenses: Borosilicate glass in silicone mountings.
11. Framing Shutters: Stainless steel, four way; with each blade in a separate plane under adjustable tension mounting. Blades adjust plus or minus 30 degrees of rotation in gate, for 120-degree-minimum total angular rotation between adjacent blades.
12. Color Filter Frame Holder: Attached to front of fixture.
13. Fixture Yoke: Rigid metal arranged for vertical aiming of unit and equipped with T-bolt or hand screw to lock alignment.

C. Ellipsoidal Spotlights: Fixtures with an elliptical reflector mounted in a fixed relationship to the lamp.

1. Lamp Rating: 575W, 120V, med. 2 pin 2000 hour.

2. Cast Aluminum Housing
3. Color frame & safety cable: one for each fixture.
4. Provide the following:
   - (16) - 26° Ellipsoidal Spotlight
   - (12) - 36° Ellipsoidal Spotlight

D. Fresnel Lens Spotlights: Over Stage
1. Lamp Rating: 575 W, 120 V, med. 2 pin, 2000 hour.
2. Lens: 6 inch (152 mm).
3. Color frame & safety cable: one for each fixture.
4. Provide the following:
   - (20) PAR-nel/or Rama Fresnel

E. Border lights: Over stage.

1. 6' ft. x 3 circuits with red, green, and blue 50 degree spread roundels.
2. Lamp rating: 300 W, 120 V. (Provide Q250 Par 38/FL lamps)
3. 12 Color frames per unit & safety cables: two for each fixture.
4. Hanging hardware & floor trunions.
5. Provide the following:
   - (4) R40 Borderlight (12 lamp / 3 circuit)

F. Cyclorama Lights

1. 3 Cell X 3 Circuit Cyclorama Wash Light
2. Lamp rating – 300 watt to 2000 watt per cell (provide with 1000Watt FCM Lamps).
3. Color frame: One per cell
4. Safety cable: One per fixture
5. Provide the following:
   - (4) - #6571-3 L&E 3-Cell Cyc Lights

G. Stage Work Lights

1. Single Cell general wash light'
2. Safety Glass Lens
3. Lamp – 575w UL/CL – FLK/LL
4. Connector shall be L5-20/C Twistlock Connector
5. Safety Cable – One per fixture
6. Provide the following:
   - (6) – L&E Worklight

2.3 ACCESSORIES

A. Provide the following:
- (6) 25ft 12/3 SO Stage extension cables
- (6) 10ft 12/3 SO Stage extension cables
- (6) 36" molded 2/fer
- 10 Sheets color media

2.4 LAMPS

A. Manufacturers:

1. GE Lighting.
2. OSRAM SYLVANIA.
3. Philips Lighting North America; a division of Philips Electronics North America Corporation.

B. Comply with the standard of the ANSI C78 Series that is applicable to each type of lamp. Where lamps of designated type, characteristics, and wattage are not indicated, provide lamps recommended by manufacturer of fixture in highest wattage for which fixture is listed.

2.5 DISTRIBUTION COMPONENTS

A. Manufacturers:

1. Electronic Theatre Controls
2. SSRC
3. Union Connector Co., Inc
4. Performance Electric
5. Leviton/Colortran

B. Connector Strip: UL-listed, factory-wired wireway and receptacle assembly.

1. Wireway: Steel or extruded aluminum; with removable cover and nominal cross-section dimensions of 4 by 4 inches by ten feet in length.
2. Accessories: Cable clamps, pipe hangers for 1-1/2 inch pipe, support cradles, and cable strain relief grips for each cable where multi-cable is used.
3. Pin Connector: On 18" pigtail.
4. Connector Wiring: For connecting to terminal blocks; with 125 deg C, cross-linked, and polyethylene-insulated, identification-labeled wire.
5. Terminal Blocks: Molded-barrier type, with screw lugs to suit supply conductors.
6. Mounting Hardware: Furnished with each unit; permits surface, single-pipe threaded rod bracket mounting. See drawing detail.
7. Finish: Semi-gloss or matte black.
8. Provide the following: See layout drawings for location.
    - FOH – (1) 40ft Connector strips w/18 – pigtails on 18 circuits plus (2) flush duplex receptacles for C1 & C2 + (1) Ethernet connection).
    - #1 Electric – (1) 30ft Connector Strip w/18 – pigtails on 18 circuits & (3) Work Light twistlock L5-20/R receptacles wired on one circuit)+ (1) Ethernet Connection
    - #2 Electric – (1) 30ft Connector Strip w/18 pigtails on 18 circuits & (3) Work Light twistlock L5-20/R receptacles wired on one circuit) + (1) Ethernet Connection
    - #3 Electric – (1) 6 ckt cable with VSC connector with batten lay Breakout tied to center of Batten
    - #4 Electric – (1) 30ft Connector Strip w/14 pigtails on 8 circuits + (1) Ethernet Connection
    - Stage Left and Stage Right Drop Cables: 6 ckt cable with VSC connector and Batten Lay break-outs
    - Stage Left and Stage right Plug Boxes to contain (3) flush 2P&G connectors and (1) 20A Duplex receptacle (circuits duplicated on both boxes)

C. Miscellaneous: Plug boxes.

1. Wireway: Shall be constructed of 16 gauge galvanized steel with 16 gauge oversized faceplate
2. Receptacles shall be available as flush panel mount or as pigtails.
3. Finish shall be matte black and circuits labeled with ¾" die cut labels.
4. Provide the following flush floor mount boxes: See layout drawings for location.
   - (2) – 4 circuit w/ (3) – 2GPT & (1) GPB receptacles.

D. Power Wire and Cable:

1. Building Wire in Raceways: Comply with Division 16 Section "Conductors and Cables."
2. Portable Power Cable: UL listed; flexible stage and lighting power cable; Types SC, SCE, or SCT; 600 V; multi-conductor; 60 deg C temperature rating. See accessories for count.

2.6 DIMMER RACK

A. Manufacturers:

1. Strand Lighting. C21
2. Color Tran. I96e
3. Electronic Theater Controls. Sensor +

B. Description:

1. Comply with UL 508.
2. Comply with USITT DMX 512 for data transmission.

C. Dimmer Panel: Dead-front, UL-labeled, front-access, integrated, wall-mounted, cabinet for mounting modular dimmers; formed-steel or extruded-aluminum structural members, completely enclosed with steel or aluminum panels. Painted with manufacturer's standard corrosion-resistant primer and finish coats and the following features:

1. Front access only, hinged door cover with removable air filter.
2. Cabinet shall be constructed to receive plug in dimmer and control modules. Systems employing bolt-in dimmers or requiring tools for removal shall not be approved.
3. Each rack shall have an automatic air-temperature sensor to shut off all dimmers in the rack should the internal temperature rise above maximum safe operating limits. When a safe operating temperature is restored, the system shall automatically reset allowing normal user control.
4. Configured for three phase four wire input.
5. Signal from fire-alarm control panel that automatically brings selected circuits to fully on or fully bright condition, overriding normal dimming and on-off controls.

D. Dimmers: Solid-state units that operate smoothly over their operating ranges without audible lamp noise (350μ) or radio-frequency interference at any setting. Modules shall be dead-front, draw-out type with floating line, load, and control sockets for smooth insertion and withdrawal; with load-side thermal-magnetic circuit breaker, speed-controlled cooling fan, and over-temperature sensor.

1. Non-Dim Units: On-off relay control only. Capable of serving inductive loads such as motors, fluorescent, or high-intensity-discharge fixtures.
2. Surge Protection: Modules shall withstand power-line surges of 6000 V/3000 A according to IEEE C62.41.
3. Toroidal choke. Filter each dimmed circuit to provide a minimum 350-microsecond, current-rise time.

4. Supply 100% output continuously.
5. Each module shall be rated 2.4 kW with 20 amps overcurrent protection.
6. Ethernet Input operating on latest version of Streaming ACN
7. Provide in quantities as shown on drawings.

2.7 PERFORMANCE CONTROL CONSOLE

1. Portable, table top faceplate.
2. Master Playback fader and dedicated Grand Master/Blackout fader.
3. 250 control channels: 1024 outputs 60 Programmable Manual Faders that can be set as LTP Channels or Submasters.
4. Minimum (1000) scene masters, 1000 groups, 1000 effects, 1000 Macros, 1000 of each palette type (focus Color Beam Intensity).
5. Fully digital Net3 and Streaming ACN native to the dimmer control electronics.
6. Bump buttons for momentary control of channels or sub masters; one for each sub master level control.
7. Split cross-fade controls with time fade function.
8. Multi-button keypad for programming in multi-scene memory mode.
9. Fade time control for assigning fade time to cues, with individual cue adjustment from 1 to 300 seconds, minimum.
10. RGB color selection for Cyclorama and borderlights via Hue and Saturation Controls
11. LCD display controls, for displaying operating menus and memory readout.
12. Controls for setting levels into memory.
13. DMX Console plug in, 2-gang, flush mount.
14. Provide one of the following:
    - (1) ETC Element 250/60 or Strand Preset Pallette II or Colortran GS Series
    - (2) ECPB/DMX/Net console plug in.
    - (1) – 25FT Net Control Cable

B. System Operation: Selectable between multi-channel two-scene preset and four-channel single-scene memory. Operational capability includes the following:

1. Live and blind programming.
2. Special effects programmability for automatic operation of lights in pulsating, sequential dimming and brightening, and other special operating modes. Special effects menu displays operator guidance for programming and individual step levels.
3. Inserting cues between designated cues without renumbering.
4. Out-of-sequence playback of cues.
5. Controlling houselights and stage lights from console by assigning their dimmers or non-dim on-off controls to a channel.
6. Retaining programmed cues in memory for minimum of one year after power outage.
7. Automatic sequential execution of programmed cues.
8. Hard Drive File system with USB Flash drive support for off-site saving. NO Floppy Drive Storage
9. DVI Monitor support
10. Patching by Channel or Address

2.8 STAGE MANAGERS PANEL

1. Sectional wall mount cabinet; double hinged with locking front door.
2. Upward facing side louvers providing air flow.
3. 16 gauge steel construction.

4. Finished in baked enamel standard colors.
5. Provide 19" ## unit cabinet from one of the following manufacturers:
   - HOME, Inc.
   - Allied
   - Middle Atlantic
6. Furman PL-8 power conditioner with 2 canister lights.
7. Ethernet Switch with cable management and Patch baySingle Duplex receptacle wired as non-controlled convenience outlet.
8. ECPB/NET – panel mount for Control Console or gateway plug in.
9. LCD Touchscreen preset select/system back up.

2.9 SYSTEM PRESET SELECTION STATION

1. Button/Fader stations shall be provided with record function to enable the recording of scenes preset with the lighting control console and stored in the lighting control system.
2. Access to presets shall not require that the control console be plugged in.
3. Button stations shall consist of an electronic assembly and faceplate which shall utilize a cantilever styled switch array.
4. Stations shall flush mount in industry standard gangable back boxes (provided by others) per manufacturer's requirements.
5. Station faceplates and button caps shall be constructed of injection molded, ABS plastic.
6. Buttons shall contain an integral multi-color LED response indicator and IR Receiver.
7. Stations shall have no visible means of attachment.
8. All station legends shall be silk-screened in a scratch and wear resistant dark gray paint.
9. Button stations shall be available in white, ivory, gray, and black. Custom colors shall be available with sample.
10. Button stations shall be available with 1, 2, 5, 7, and 10 buttons. Custom button stations shall be available.
11. 1, 2, and 5 button stations shall be available with a maintained or momentary keyswitch.
12. Provide the following:
    - (2) Architectural Control – 4 Fader/7 Button w/locking cover. Center of Auditorium and Control Booth
    - (1) LCD Touchscreen Select Station. Panel mount in SMP.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Set permanently mounted items level, plumb, and square with ceilings and walls.

B. Indicated mounting heights are to bottom of unit for suspended items and to center of unit for wall-mounted items.

C. Mount and connect fixtures, and install and connect distribution devices.

1. If arrangement is not indicated, install so each fixture, dimmer, house lighting circuit, control channel, and outlet circuit can be operated and complete system demonstrated in all operating modes.
2. Install safety cables secured to stage rigging or gridiron for all pipe-mounted electrical fixtures and equipment.

D. Install wall mounted dimmer cabinets on plywood backboards. Backboard shall be two inches larger in each dimension than the cabinet. Paint backboard to match adjacent finished wall surface prior to mounting cabinet.

3.2 WIRING

A. Power Wiring:

1. Install wiring as specified in Division 16 Section "Conductors and Cables" for hard-wired connections. Install wiring in raceways except cable and plug connections.
2. Install power wiring with a separate neutral for each output circuit from dimmer and for each house and stage lighting circuit.

B. Signaling, Remote-Control, and Power-Limited Circuits:

1. Size conductors according to lighting control device manufacturer's written instructions, unless otherwise indicated.
2. Remote-control circuits associated with emergency lighting control shall be installed complying with Class 1 Circuit standards in NFPA 70.

C. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points.

D. Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.

E. Remove wall plates and protect devices and assemblies during painting.

F. Support lighting fixtures, distribution components, and accessories as specified in Division 16 Section "16050." Equip all pipe-mounted equipment with safety cables that are secured to supporting pipe.

G. Ground equipment according to Division 16 Section "Grounding and Bonding."

3.3 IDENTIFICATION

A. Identify components, power, and control wiring according to Division 16 Section "Electrical Identification."

B. Label each fixture, lighting outlet, distribution device, and dimmer module with unique designation. Make designations on elevated components readable from floor.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's representative shall provide on site assistance to the electrical contractor for coordinating the installation of the lighting control system; focusing of fixtures and final system check out. Assistance shall not be limited by number of visits.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.

C. Schedule electrical tests and visual and mechanical inspections with at least seven days' advance notice.

D. Visual and Mechanical Tests and Inspections:

1. Inspect each fixture, outlet, module, control, and device for defects, finish failure, corrosion, physical damage, labeling by nationally recognized testing laboratory, and nameplate.
2. Exercise and perform operational tests on mechanical parts and operable devices according to manufacturer's written instructions.
3. Check tightness of electrical connections with torque wrench.
4. Verify proper protective device settings, fuse types, and ratings.
5. Record results of tests and inspections.

E. Electrical Tests: Perform tests according to manufacturer's written instructions.

1. Continuity tests of circuits.
2. Operational Tests: Connect each outlet to a fixture and a dimmer output circuit so each dimmer module, dimmer control and output circuit, outlet, and fixture in a typical operating mode will be sequentially tested. Set and operate controls to demonstrate fixtures, outlets, dimmers, and controls in a sequence that cues and reproduces actual operating functions for a typical system of the size and scope installed. Include operation and control of houselights and stage lights from each control location. Record fixture and outlet assignments, control settings, operations, cues, and observations of performance.

F. Correct deficiencies disclosed by tests and inspections, and retest deficient items. Verify that specified requirements are met.

G. Test Labeling: After satisfactory completion of tests and inspections, apply a label to tested components indicating test results, date, and responsible organization and person.

H. Reports: Prepare a schedule of lighting outlets by number; indicate circuits, dimmers, connected fixtures, and control-channel assignments. Prepare a schedule of control settings and circuit assignments for house control channels. Prepare written reports of tests and observations. Report defective materials, workmanship, and unsatisfactory test results. Include records of repairs and adjustments made.

3.5 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting and programming system to suit actual occupied conditions. Provide up to two visits to Project outside normal occupancy hours for this purpose.

3.6 DEMONSTRATION

A. Refer to Section 01771 – Demonstration and Training for proper operation and maintenance of installed products and to review troubleshooting procedures.

B. 8 hours of training shall be provided as follows:

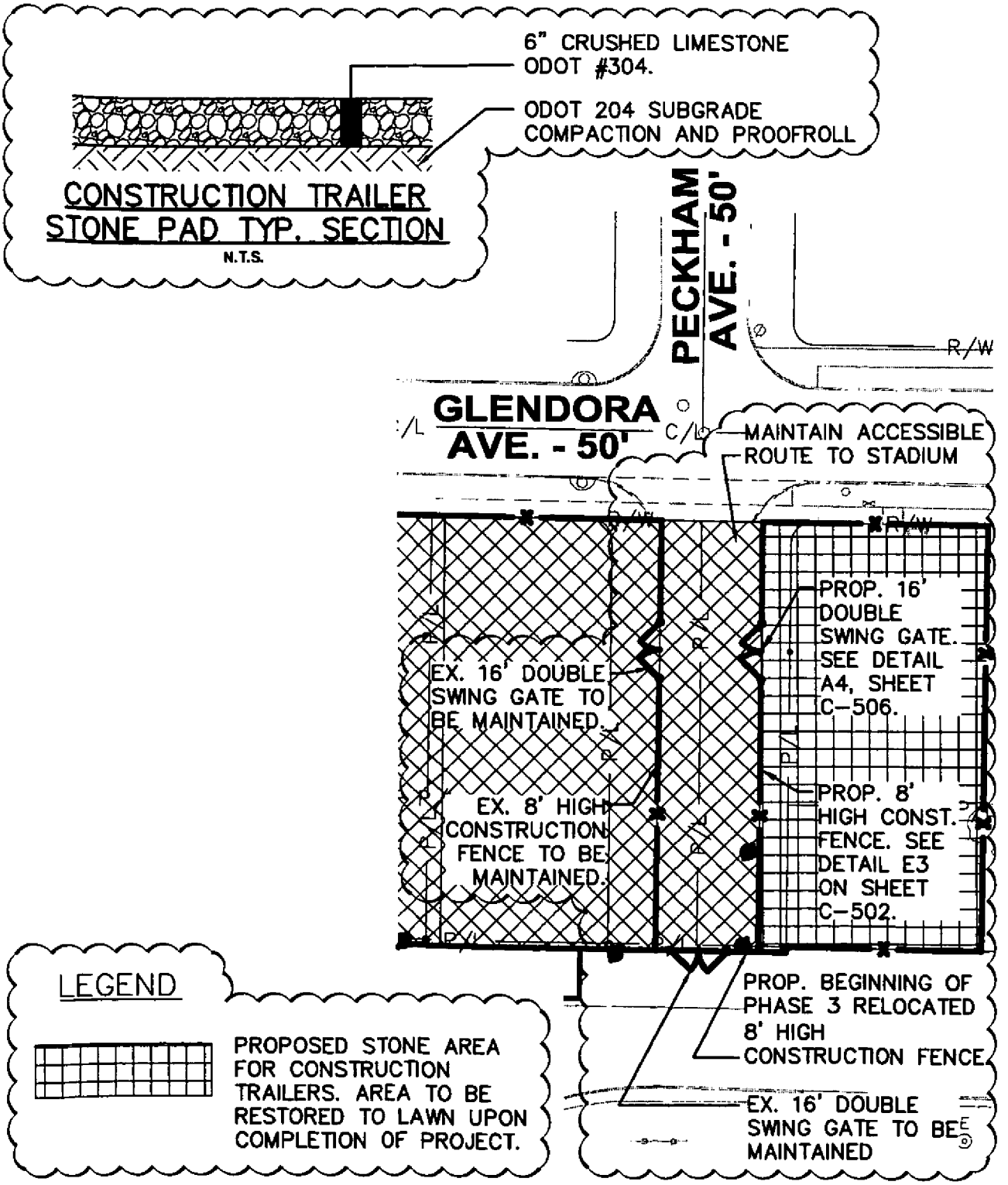
C. System Maintenance and operation (2 hours)

D. Lighting fixture introduction and demonstration (1 Hour)

E. Control Console Training (5 Hours)

END OF SECTION

BUCHTEL PERKINS CLC PHASE 3 - CLC PACKAGE 1040 COPLEY RD, AKRON, OH 44320	REFERENCED DRAWING: C-102	SKETCH #: C-1	ADD #: 1
	RFI #:	SCALE: 1"=40'	DATE: 07-19-10


6" CRUSHED LIMESTONE ODOT #304.
ODOT 204 SUBGRADE COMPACTION AND PROOFROLL
CONSTRUCTION TRAILER STONE PAD TYP. SECTION
N.T.S.
PECKHAM AVE. - 50'
R/W
GLENDORA AVE. - 50'
C/L
MAINTAIN ACCESSIBLE ROUTE TO STADIUM
PROP. 16' DOUBLE SWING GATE. SEE DETAIL A4, SHEET C-506.
EX. 16' DOUBLE SWING GATE TO BE MAINTAINED.
EX. 8' HIGH CONSTRUCTION FENCE TO BE MAINTAINED.
PROP. 8' HIGH CONST. FENCE. SEE DETAIL E3 ON SHEET C-502.
LEGEND
PROPOSED STONE AREA FOR CONSTRUCTION TRAILERS. AREA TO BE RESTORED TO LAWN UPON COMPLETION OF PROJECT.
PROP. BEGINNING OF PHASE 3 RELOCATED 8' HIGH CONSTRUCTION FENCE
EX. 16' DOUBLE SWING GATE TO BE MAINTAINED

A1 STAGE PHASE PLAN

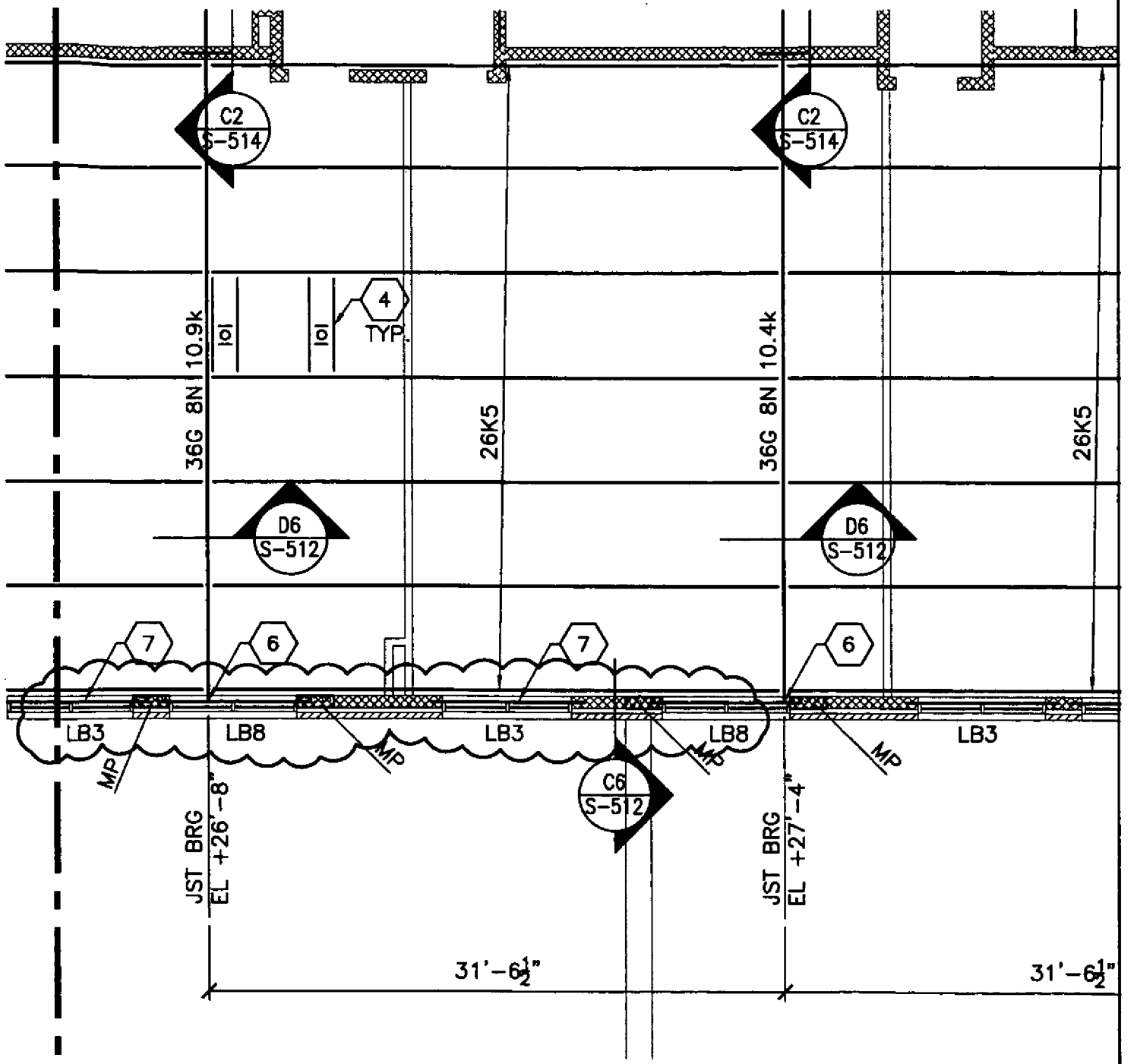
C-102 1"=40'

imAgiNE
Akron Public Schools as Community Learning Centers

GUUS PYLE SCHOMER BURNS & DEHAVEN INC.
GPD ASSOCIATES
520 South Main Street, Suite 2531
Akron, Ohio 44311
330-572-2100, Fax 330-572-2101

RUHLIN • PANZICA • JENKINS
RPJ
CONSTRUCTION MANAGERS
400 West Market Street, Suite 1, Akron, Ohio 44303

BUCHTEL/PERKINS, C.L.C. PHASE 3	
REFERENCED DRAWING: S-118	SKETCH #: S-072010-01
ISSUE #: ADDENDUM 1	P.R. #: 07BUPK9029425
SCALE: 1/8" = 1'-0"	DATE: 7/20/10

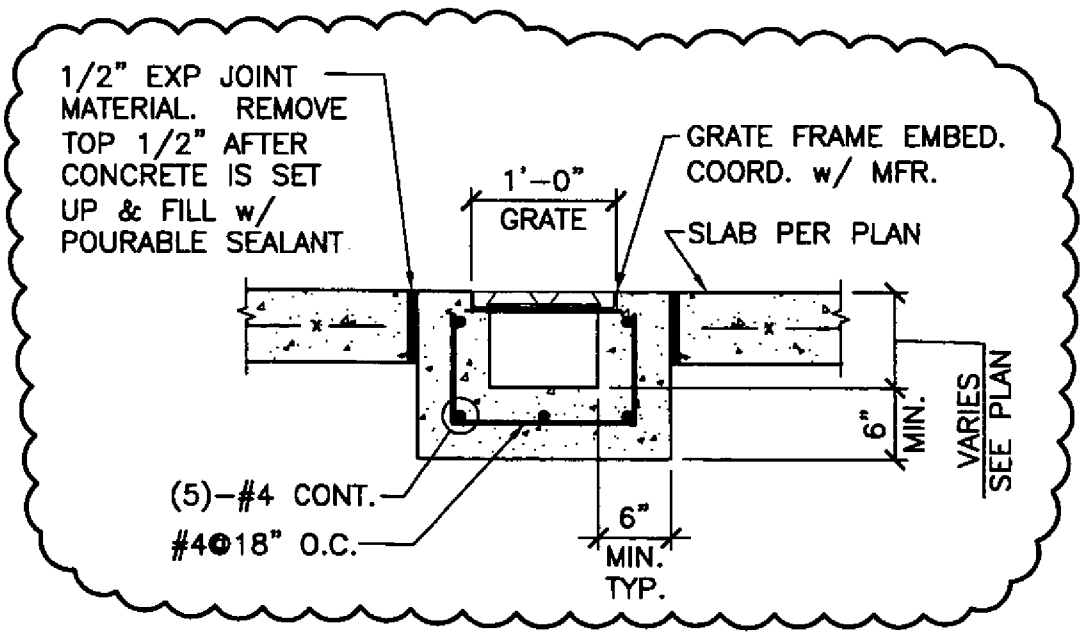


A3 ROOF FRAMING PLAN AREA 'B'

S-118

1/8"=1'-0"

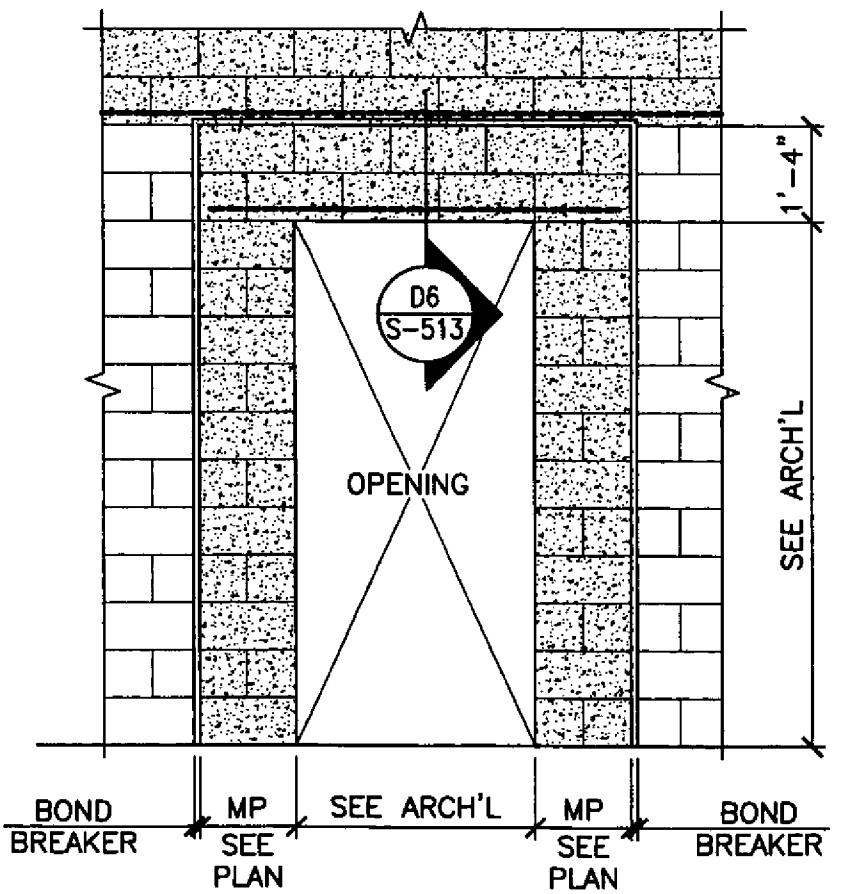
imAgine Akron Public Schools 8s Community Learning Centers	GPD ASSOCIATES 320 South Main Street, Suite 2531 Akron, Ohio 44311 330-572-2100 , Fax 330-572-2101	RUHLIN • PANZICA • JENKINS RPJ CONSTRUCTION MANAGERS 400 West Market Street, Suite 1, Akron, Ohio 44303	BUCHTEL/PERKINS, C.L.C. PHASE 3
			REFERENCED DRAWING: S-502 / SKETCH #: S-072010-02
			ISSUE #: ADDENDUM 1 / P.R. #: 07BUPK9029425
			SCALE: 3/4" = 1'-0" / DATE: 7/20/10


1/2" EXP JOINT MATERIAL. REMOVE TOP 1/2" AFTER CONCRETE IS SET UP & FILL w/ POURABLE SEALANT
1'-0" GRATE
GRATE FRAME EMBED. COORD. w/ MFR.
SLAB PER PLAN
6" MIN. VARIES SEE PLAN
(5)-#4 CONT.
#4@18" O.C.
6" MIN. TYP.

B6 SECTION

S-502 3/4" = 1'-0"

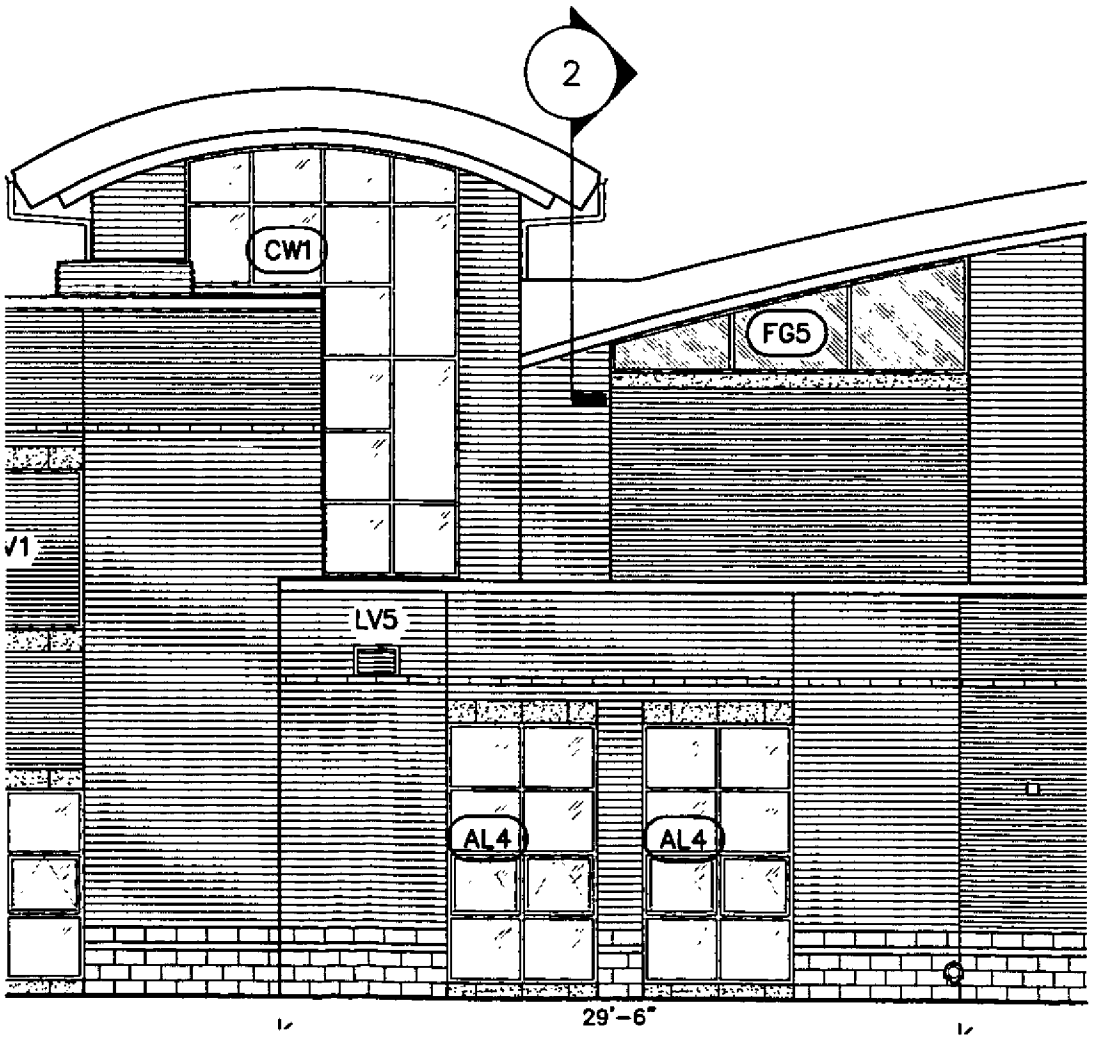
imAgiNE Akron Public Schools as Community Learning Centers	CLAUS PYLE SCHOMER BURNS & DEHAVEN INC. GPD ASSOCIATES 520 South Main Street, Suite 2531 Akron, Ohio 44311 330-572-2100 , Fax 330-572-2101	RUHLIN • PANZICA • JENKINS RPJ CONSTRUCTION MANAGERS 400 West Market Street, Suite 1, Akron, Ohio 44303	BUCHTEL/PERKINS, C.L.C. PHASE 3
			REFERENCED DRAWING: S-511 / SKETCH #: S-072010-03
			ISSUE #: ADDENDUM 1 / P.R. #: 07BUPK9029425
			SCALE: 3/4" = 1'-0" / DATE: 7/20/10



D2 TYP. FIREWALL PORTAL DETAIL

S-511 3/8" = 1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: --	SKETCH #: A-1	ADD #: 1
	RFI #: --	SCALE: NTS	DATE: 07-19-10

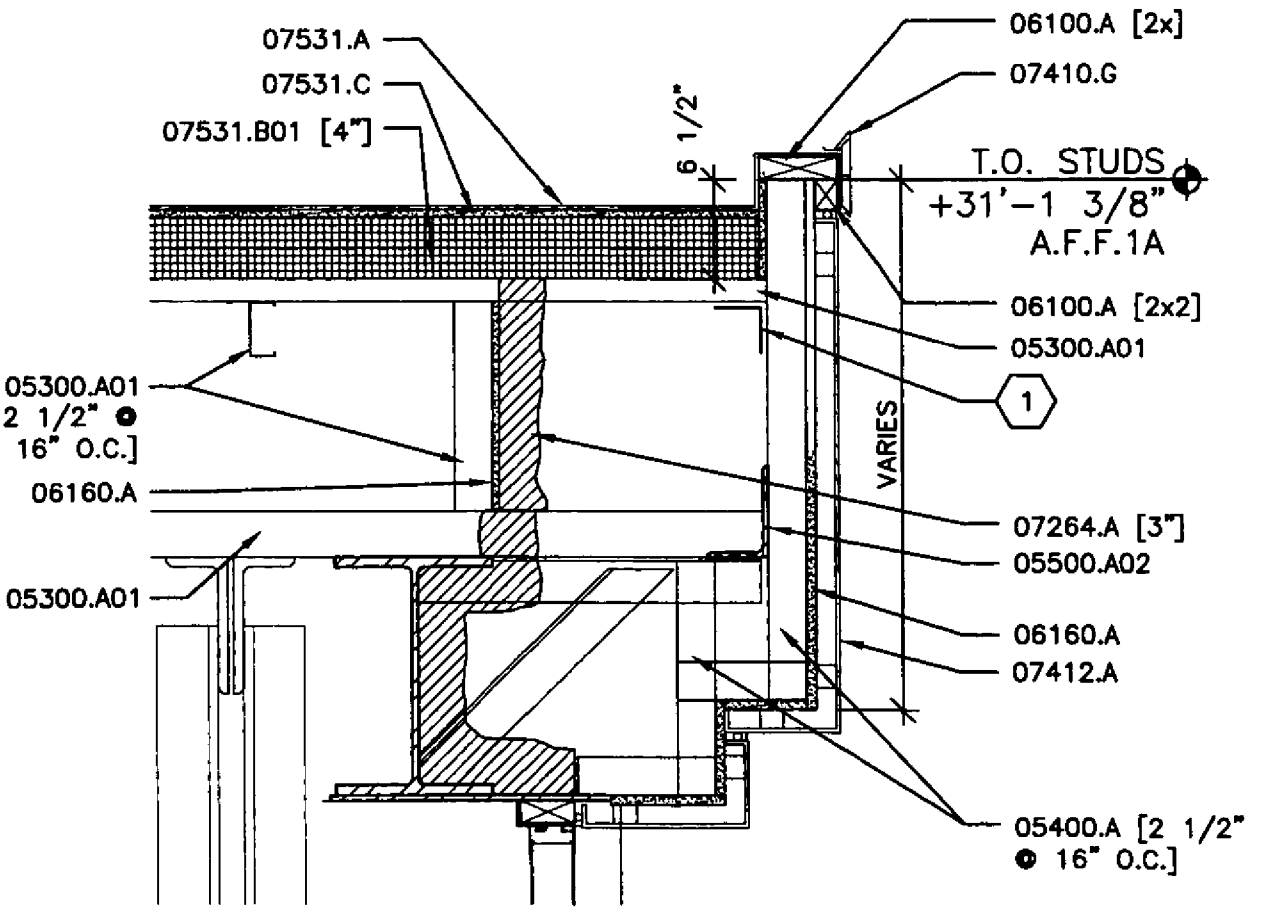


1. LIGHT GAGE METAL ANGLE.

1 PARITAL SOUTH ELEVATION

1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: –	SKETCH #: A-2	ADD #: 1
	RFI #: –	SCALE: NTS	DATE: 07-19-10

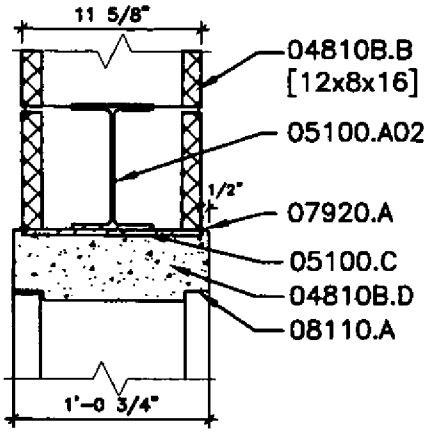


1. LIGHT GAGE METAL ANGLE.

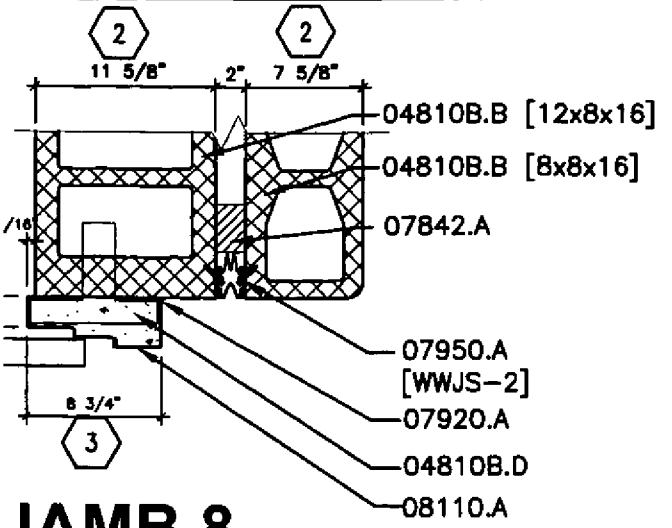
2 SECTION DETAIL

1"=1'-0"

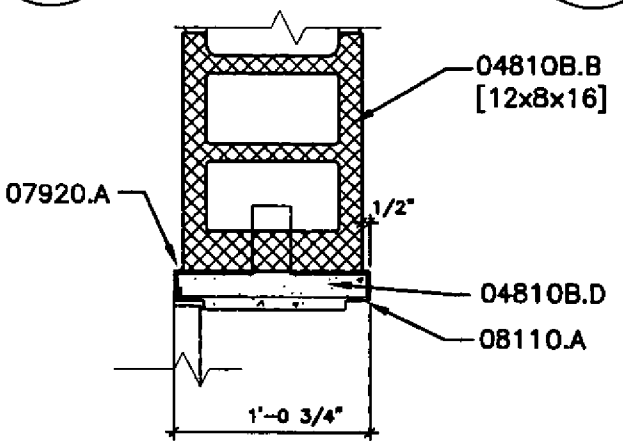
BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-603,A-604	SKETCH #: A-8	ADD #: 1
	RFI #: --	SCALE: 1"=1'-0"	DATE: 07-19-10



A3 / A-603 HEAD 11
1"=1'-0"



C4 / A-604 JAMB 8
1"=1'-0"



A3 / A-604 JAMB 11
1"=1'-0"

REFERENCE KEYNOTES

DIVISION 4
04810B.B CONCRETE MASONRY UNIT [SIZE]
04810B.D GROUT FILL

DIVISION 5
05100.A02 STEEL BEAM
05100.C BASE PLATE

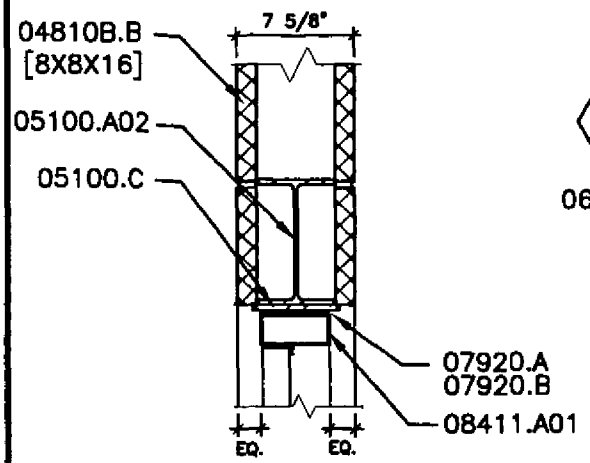
DIVISION 7
07842.A FIRE STOPPING MATERIAL
07920.A JOINT SEALANT
07950.A EXPANSION CONTROL ASSEMBLY [TYPE]

DIVISION 8
08110.A STEEL FRAME

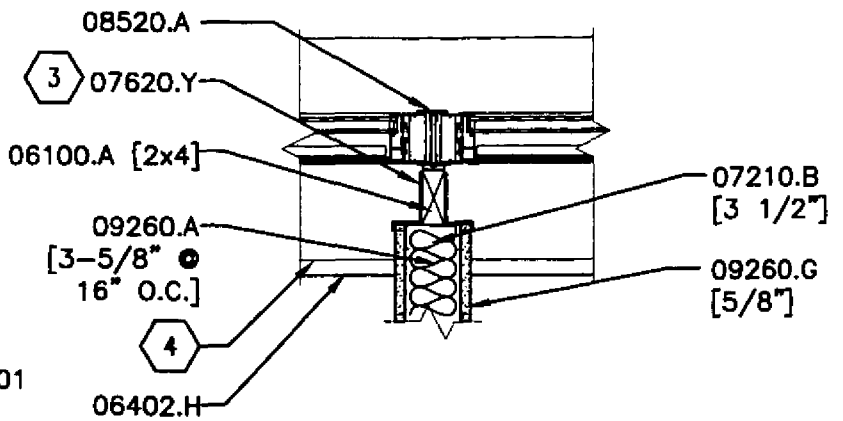
SHEET KEYNOTES

2. SIZE OF CMU VARIES BETWEEN 7-5/8" AND 11-5/8". REFER TO ARCH. PLANS FOR WALL SIZE.
3. FRAME DEPTH VARIES. FRAME DEPTH TO BE 7-3/4" DEEP AT 7-5/8" WALL. FRAME DEPTH TO BE 8-3/4" DEEP AT 11-5/8" CMU WALL.

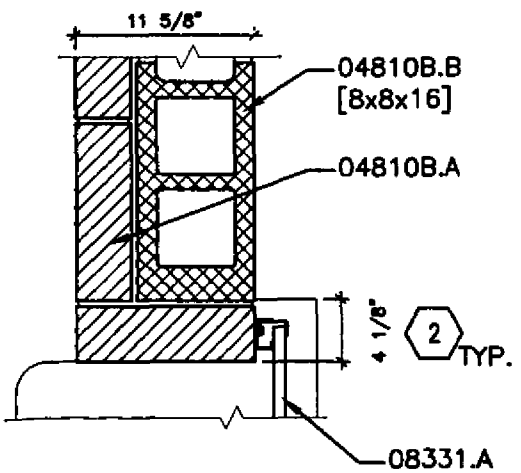
BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-607,A-608	SKETCH #: A-4	ADD #: 1
	RFI #: --	SCALE: 1"=1'-0"	DATE: 07-19-10



D2 HEAD 68
A-607 1"=1'-0"



C5 PLAN DETAIL @ WALL/ GLASS INTERSECTION
A-608 1"=1'-0"



A1 JAMB 46
A-608 1"=1'-0"

REFERENCE KEYNOTES

DIVISION 4

04810B.B	CONCRETE MASONRY UNIT [SIZE]

DIVISION 5

05100.A02	STEEL BEAM
05100.C	BASE PLATE

DIVISION 6

06100.A	WOOD BLOCKING [SIZE]
06402.H	SOLID SURFACE SILL

DIVISION 7

07210.B	BATT INSULATION [THK.]
07620.Y	BREAK METAL
07920.A	JOINT SEALANT
07920.B	FOAM BACKING ROD

DIVISION 8

08331.A	OVERHEAD COILING DOOR
08411.A01	ALUMINUM DOOR
08520.A	ALUMINUM WINDOW

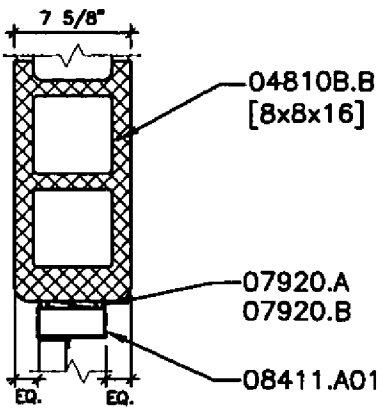
DIVISION 9

09260.A	STUDS AND TRACKS [SIZE]
09260.G	GYPSUM BOARD [THK.]

SHEET KEYNOTES

2. SILL BELOW COILING DOOR TO EXTEND 4-1/8" BEYOND CMU WALL.
3. COLOR TO MATCH ADJACENT GYPSUM BOARD PARTITION.
4. GYPSUM BOARD WALL BELOW SILL.

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-609	SKETCH #: A-5	ADD #: 1
	RFI #: –	SCALE: 1"=1'-0"	DATE: 07-19-10



A3 JAMB 61

A-609 1"=1'-0"

REFERENCE KEYNOTES

DIVISION 4

04810B.B	CONCRETE MASONRY UNIT [SIZE]

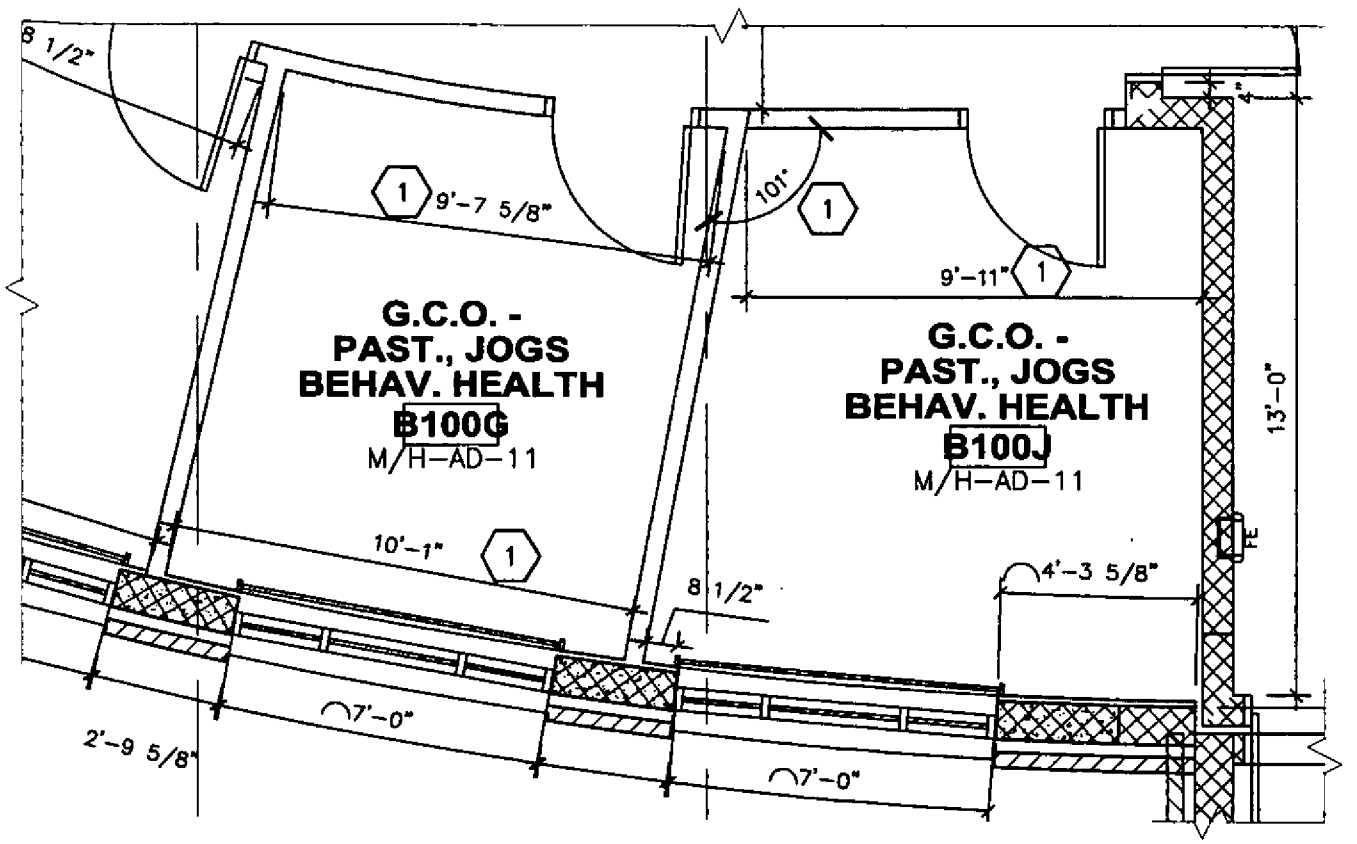
DIVISION 7

07920.A	SEALANT
07920.B	JOINT BACKING –FOAM ROD

DIVISION 8

08411.A01	ALUMINUM DOOR

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-403	SKETCH #: A-6	ADD #: 1
	RFI #: –	SCALE: 1/4"=1'-0"	DATE: 07-19-10



SHEET KEYNOTES

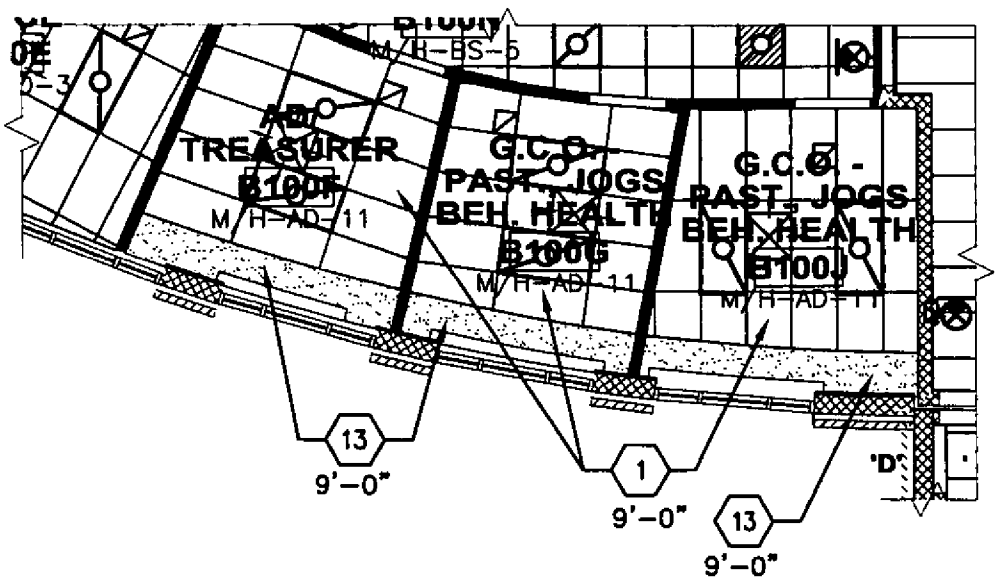
1. DIMENSION CHANGE.

BUCHTEL HIGH SCHOOL ADMINISTRATIVE AREA

A2
A-403

1/4"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-123	SKETCH #: A-7	ADD #: 1
	RFI #: --	SCALE: 1/8"=1'-0"	DATE: 07-19-10



SHEET KEYNOTES

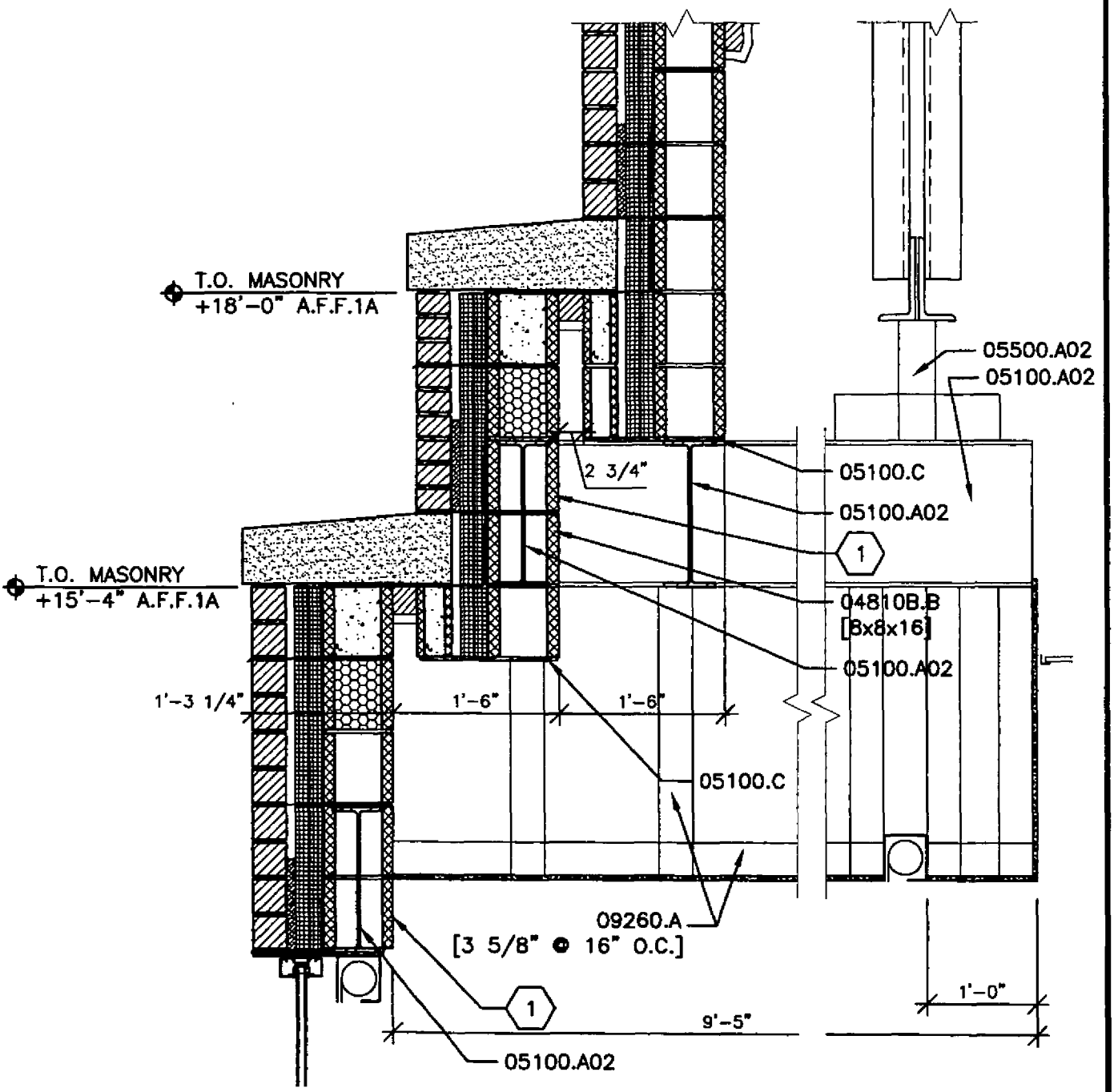
1. ACOUSTICAL PANEL CEILING.
13. 1'-7" DEEP GYPSUM BOARD SOFFIT.

FIRST FLOOR REFLECTED CEILING PLAN AREA 'D'

A3
A-123

1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-307	SKETCH #: A-8	ADD #: 1
	RFI #: –	SCALE: 3/4"=1'-0"	DATE: 07-19-10



SHEET KEYNOTES

1. MASONRY FACING.

REFERENCE KEYNOTES

DIVISION 4

04810B.B	CMU [SIZE]

DIVISION 5

05100.A02	STEEL BEAM
05100.C	BASE PLATE
05500.A02	STEEL ANGLE

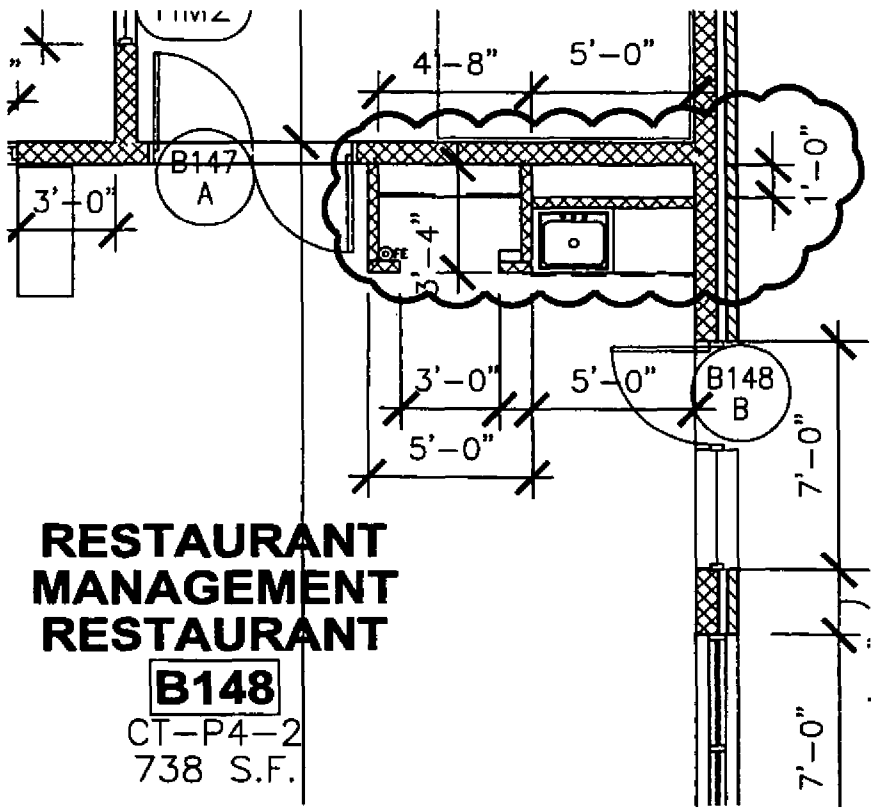
DIVISION 9

09260.A	STUDS [SIZE]

A3 WALL SECTION

A-307 3/4"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-102	SKETCH #: A-9	ADD #: 1
	RFI #: –	SCALE: NTS	DATE: 07-19-10



RESTAURANT MANAGEMENT RESTAURANT

B148

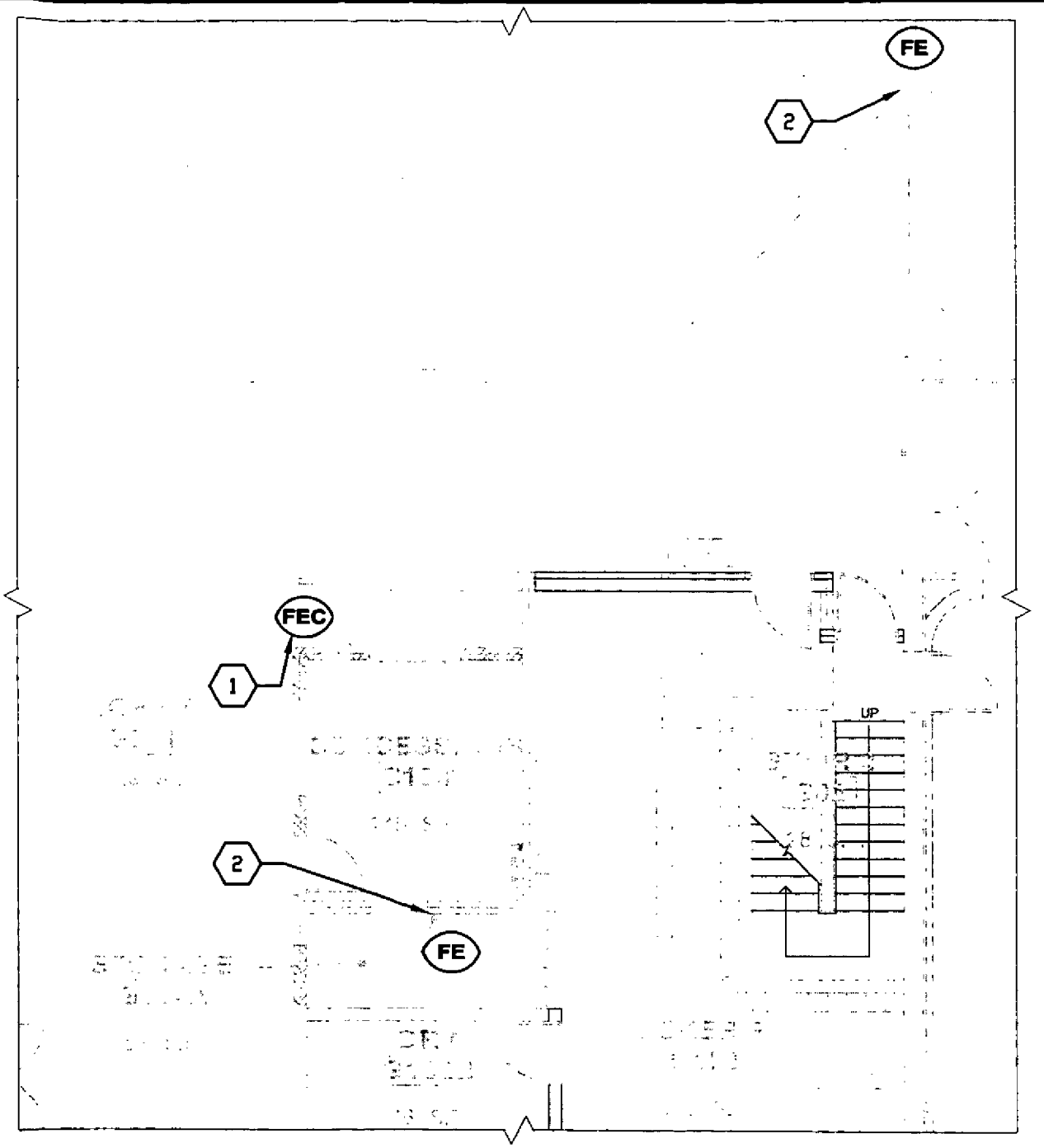
CT-P4-2

738 S.F.

1 PARITAL FLOOR PLAN

NTS

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: G-001	SKETCH #: A-10	ADD #: 1
	RFI #: –	SCALE: 1/8"=1'-0"	DATE: 07-19-10



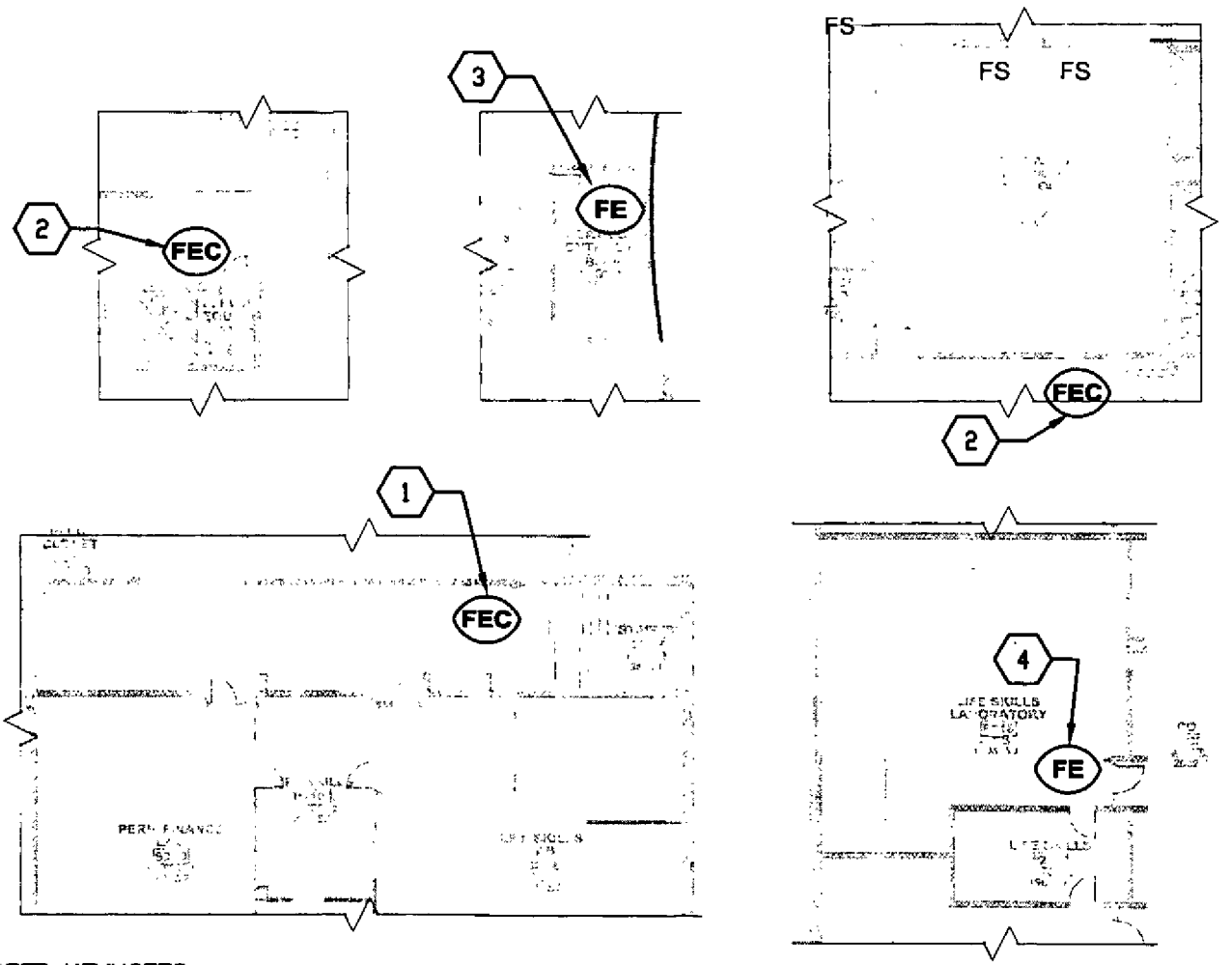
SHEET KEYNOTES

1. CORRECT LOCATION FOR FIRE EXTINGUISHER CABINET TAG IN LOBBY G001.
2. FIRE EXTINGUISHER AND FIRE EXTINGUISHER TAG 'FE' ADDED.

B2 FIRST FLOOR LIFE SAFETY PLAN

G-001 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: G-002	SKETCH #: A-11	ADD #: 1
	RFI #: –	SCALE: 1"=20'-0"	DATE: 07-19-10



SHEET KEYNOTES

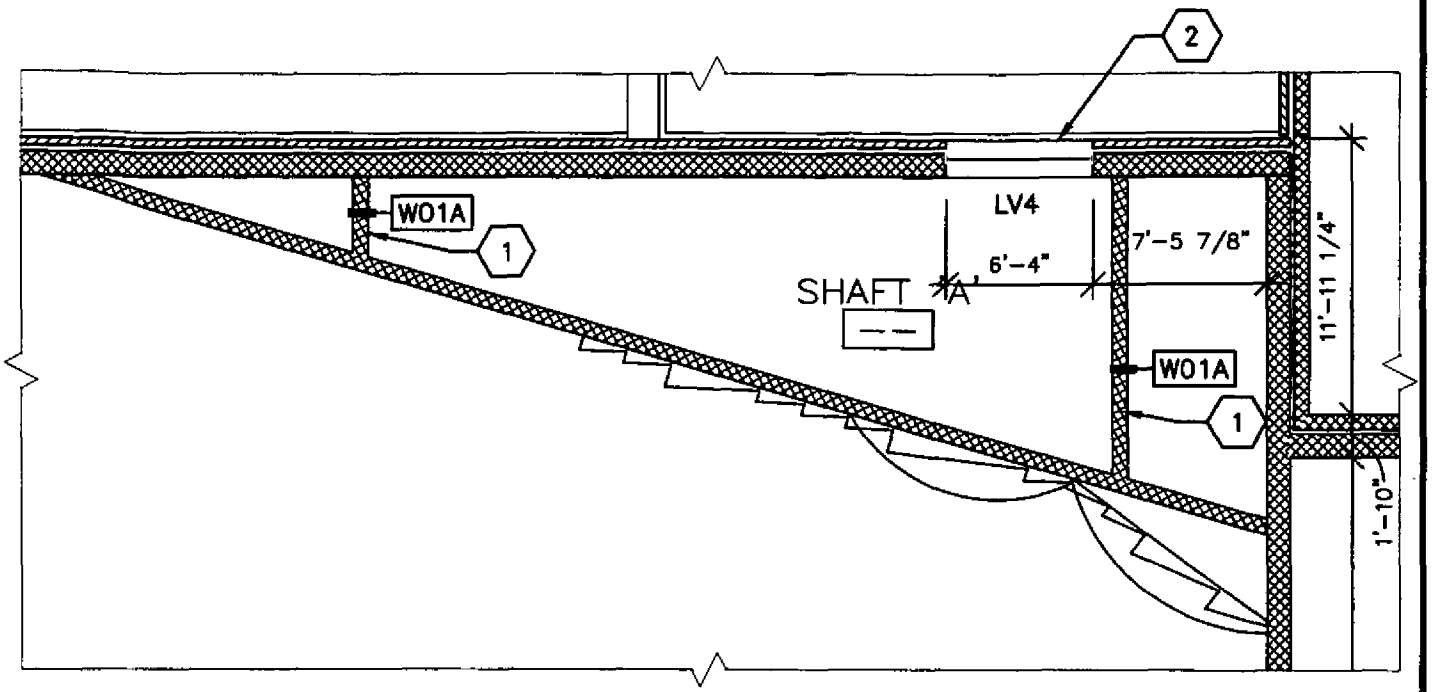
1. CORRECT TAG LOCATION FOR FIRE EXTINGUISHER CABINET.
2. FIRE EXTINGUISHER CABINET TAG 'FEC' ADDED.
3. FIRE EXTINGUISHER TAG 'FE' ADDED.
4. FIRE EXTINGUISHER TAG 'FE' MOVED.

SECOND FLOOR LIFE SAFETY PLAN

A2
G-002

1"= 20'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-114	SKETCH #: A-12	ADD #: 1
	RFI #: –	SCALE: 1/8"=1'-0"	DATE: 07-19-10



SHEET KEYNOTES

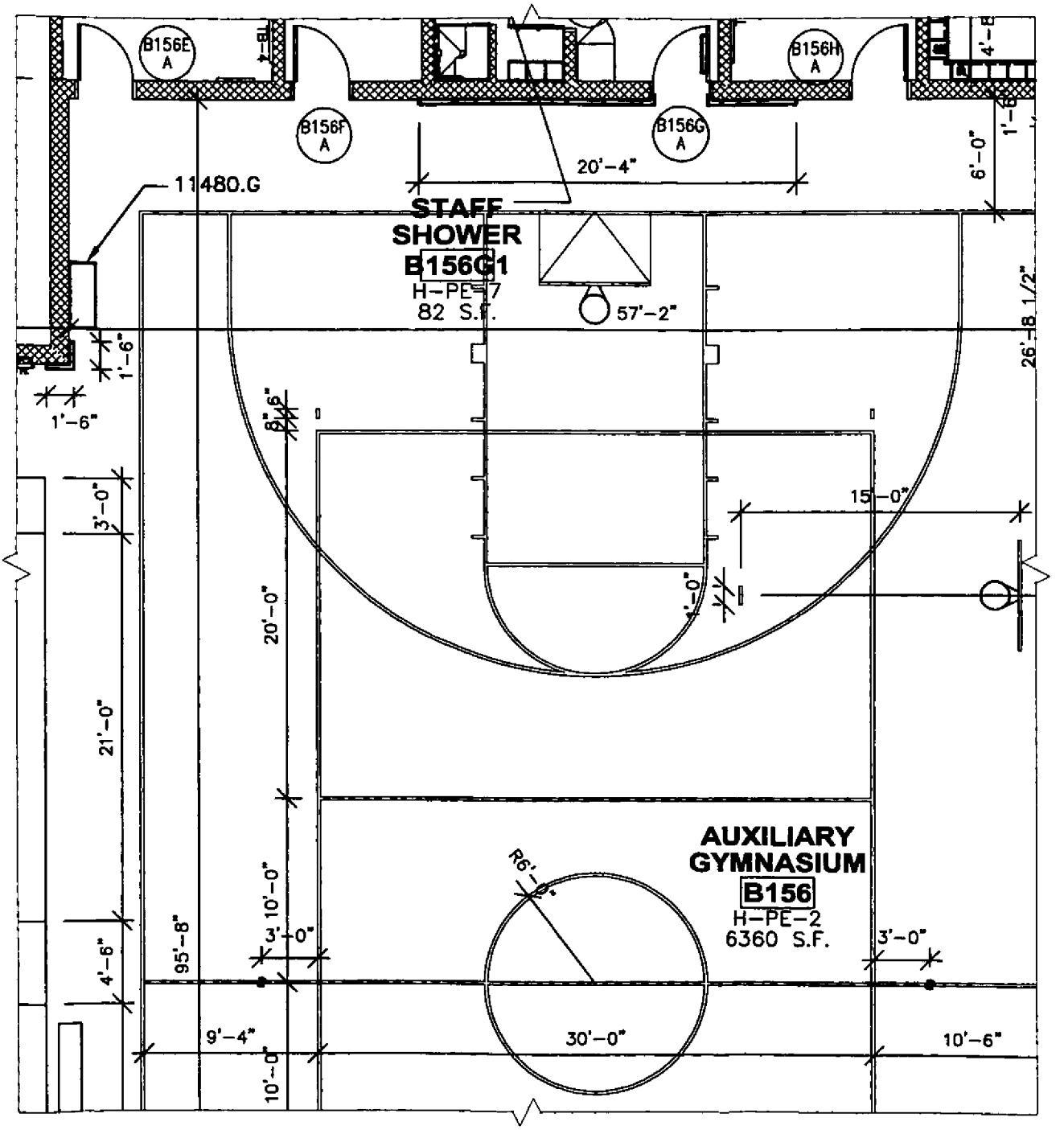
1. WALL OF DRAMA STORAGE ROOM B155 BELOW, TO EXTEND TO DECK ABOVE.
2. LOUVER LV4 HAS SHIFTED WEST 4'–0" TO PROVIDE CLEARANCE FOR EXTENDED WALL. NORTH EXTERIOR ELEVATION HAS ALSO BEEN UPDATED TO REFLECT THIS CHANGE.

A3
A-114

SECOND FLOOR PLAN AREA 'D'

1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-104	SKETCH #: A-13	ADD #: 1
	RFI #: –	SCALE: 1/8"=1'-0"	DATE: 07-19-10



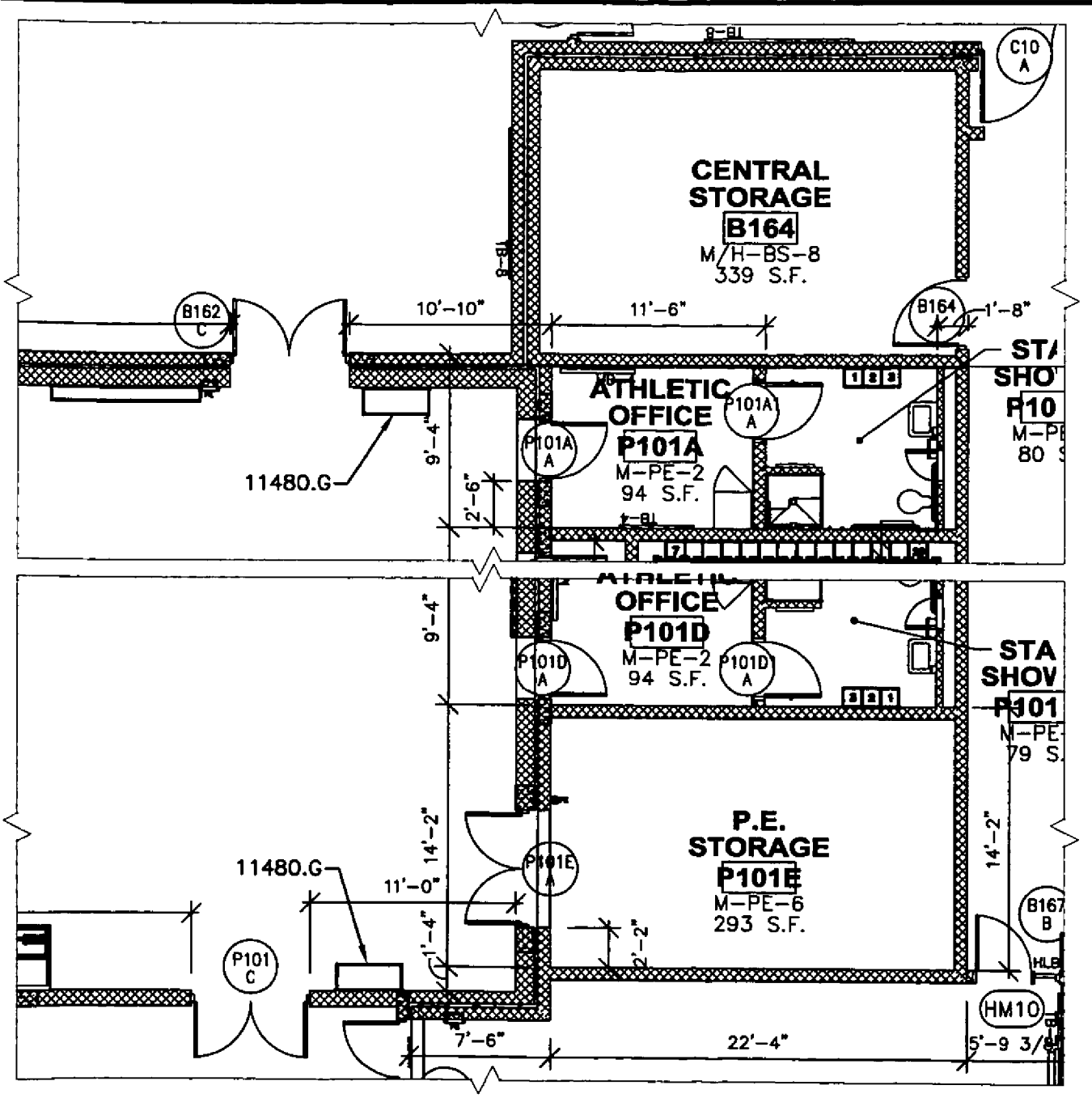
REFERENCE KEYNOTES

DIVISION 11
11480.G CHINNING BAR

A3 FIRST FLOOR PLAN AREA 'C'

A-104 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-107	SKETCH #: A-14	ADD #: 1
	RFI #: --	SCALE: 1/8"=1'-0"	DATE: 07-19-10



REFERENCE KEYNOTES

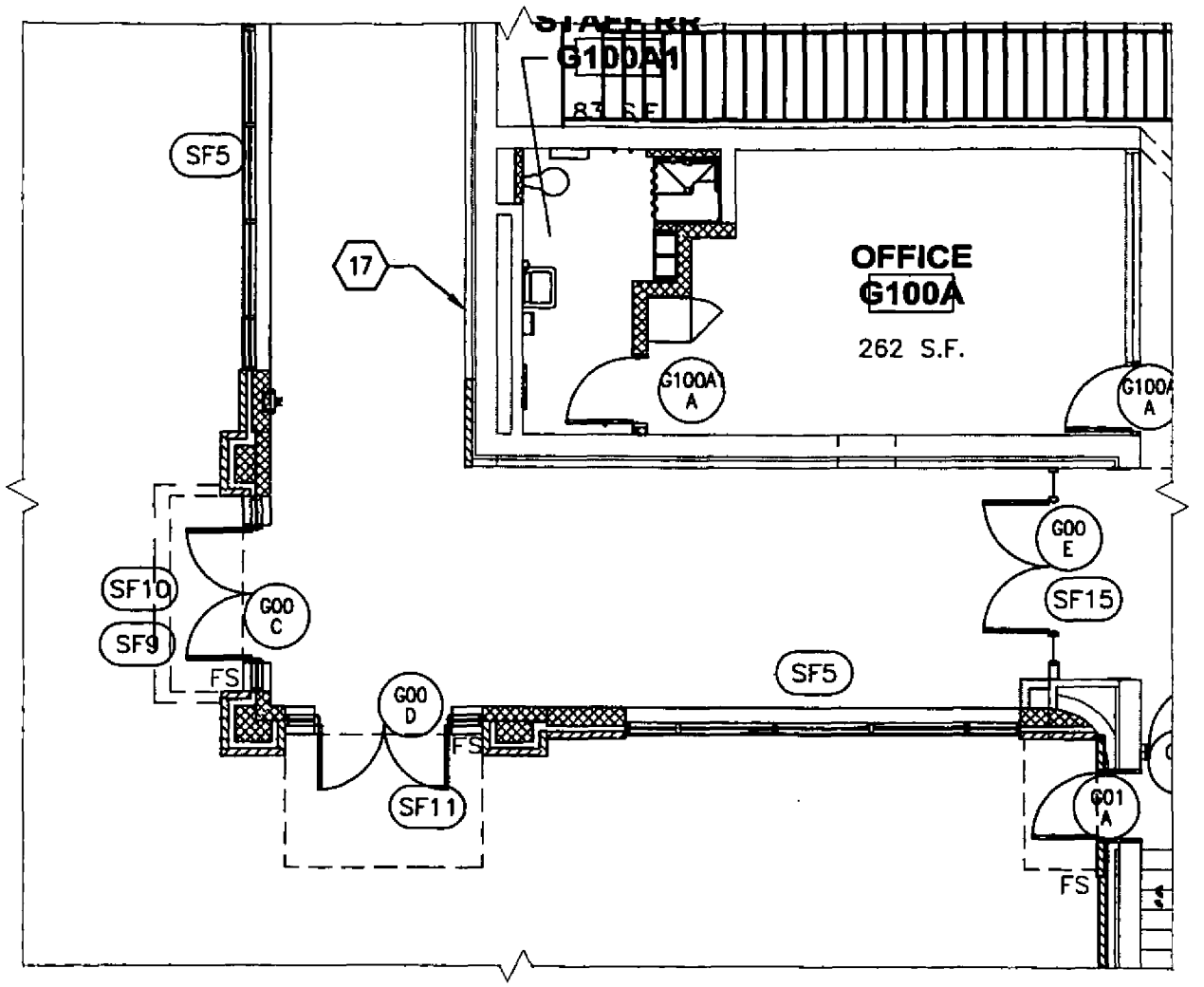
DIVISION 11

11480.G CHINNING BAR

A3 FIRST FLOOR PLAN AREA 'F'

A-107 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-109	SKETCH #: A-15	ADD #: 1
	RFI #: –	SCALE: 1/8"=1'-0"	DATE: 07-19-10



SHEET KEYNOTES

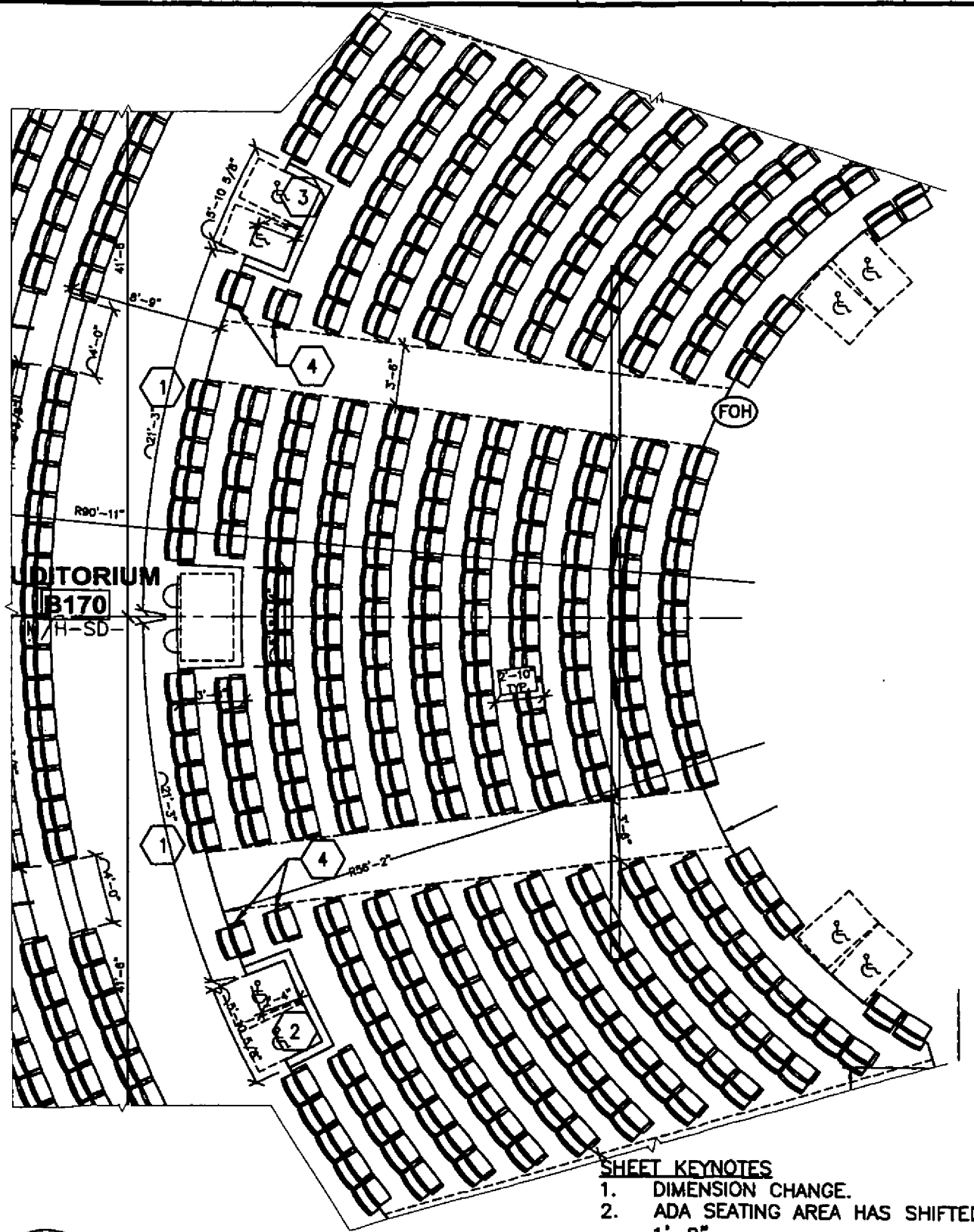
17. REPAIR BRICK WALL AT LOCATIONS OF REMOVED VALVE BOX AND GAS LINES.

ALTERNATE #A-1
FIRST FLOOR PLAN AREA 'H'

A3
A-109

1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-407	SKETCH #: A-16	ADD #: 1
	RFI #: –	SCALE: 1/8"=1'-0"	DATE: 07-19-10



SHEET KEYNOTES

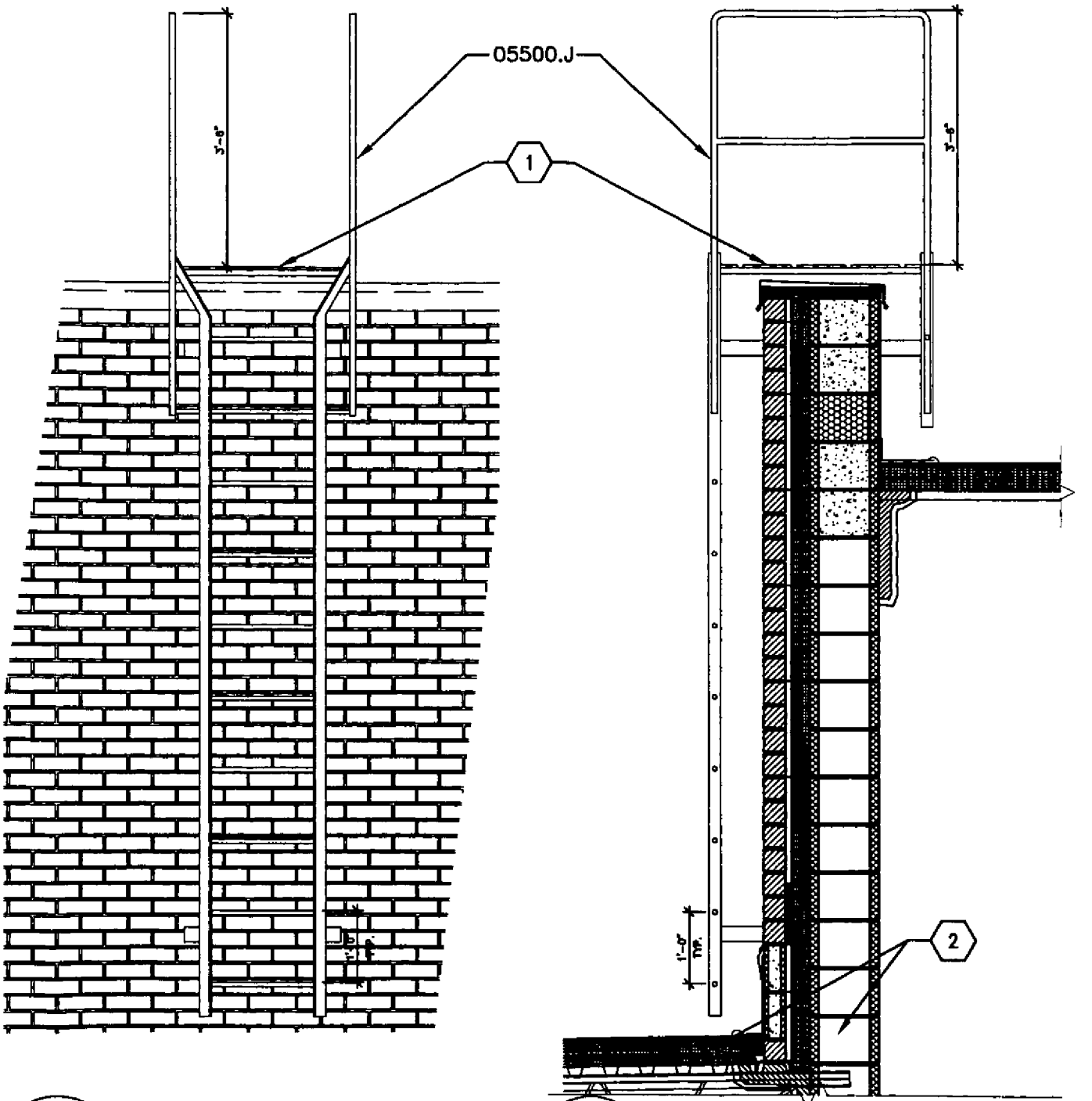
1. DIMENSION CHANGE.
2. ADA SEATING AREA HAS SHIFTED SOUTH 1'-8".
3. ADA SEATING AREA HAS SHIFTED NORTH 1'-8".
4. TWO SEATS HAVE BEEN MOVED FROM OPPOSITE SIDE OF ADA SEATING AREA.

A3
A-407

ENLARGED PLAN

1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-504	SKETCH #: A-17	ADD #: 1
	RFI #: --	SCALE: 1/2"=1'-0"	DATE: 07-19-10



A2 LADDER DETAIL
A-504 1/2" =1'-0"

D3 LADDER DETAIL
A-504 1/2" =1'-0"

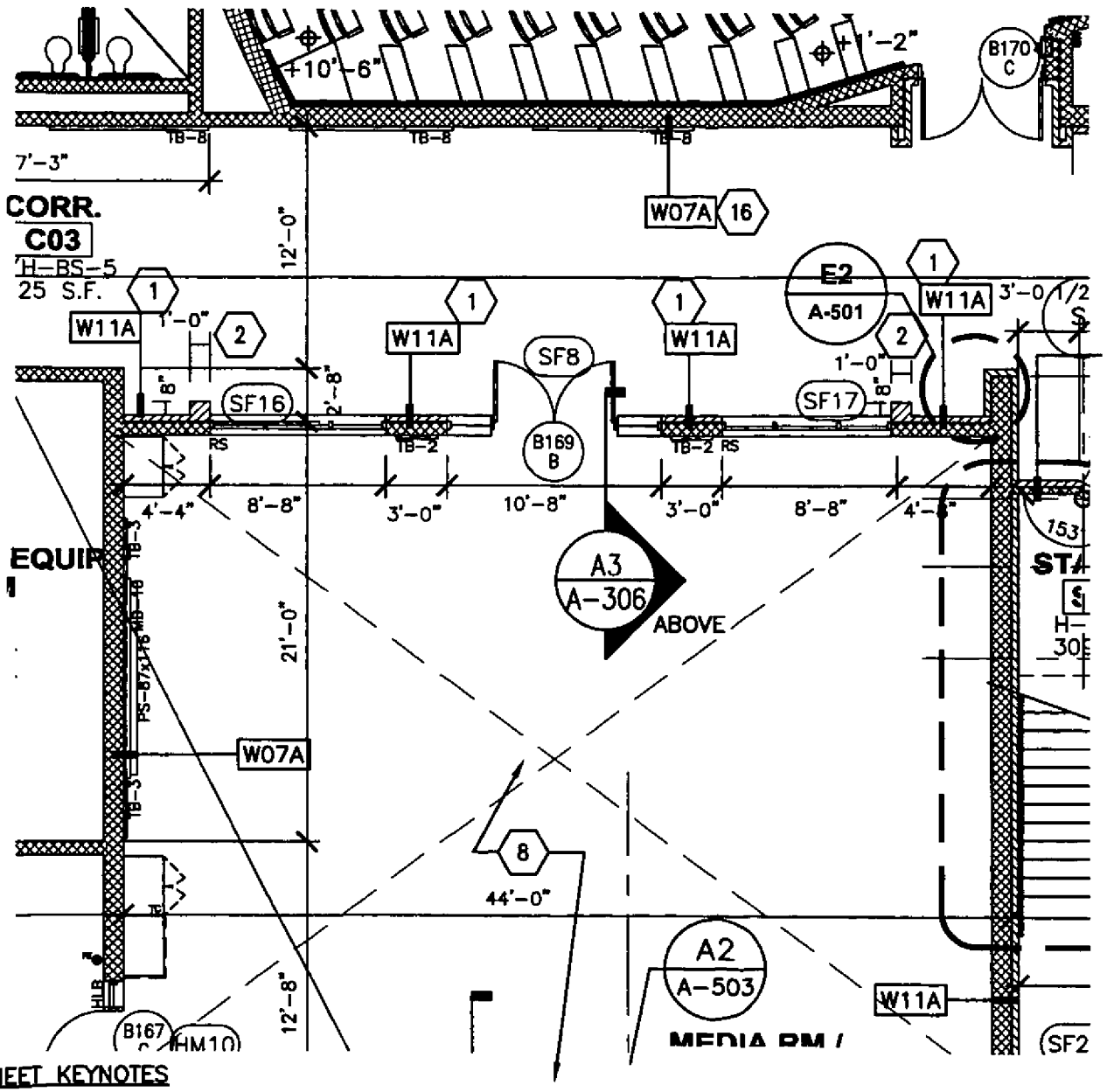
SHEET KEYNOTES

1. METAL PLATFORM
2. WALL AND ROOF CONSTRUCTION VARIES. SEE ARCHITECTURAL PLANS AND WALL SECTIONS.

REFERENCE KEYNOTES

DIVISION 5
05500.J ROOF ACCESS LADDER

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-105	SKETCH #: A-18	ADD #: 1
	RFI #: –	SCALE: 1/8"=1'-0"	DATE: 07-20-10



SHEET KEYNOTES

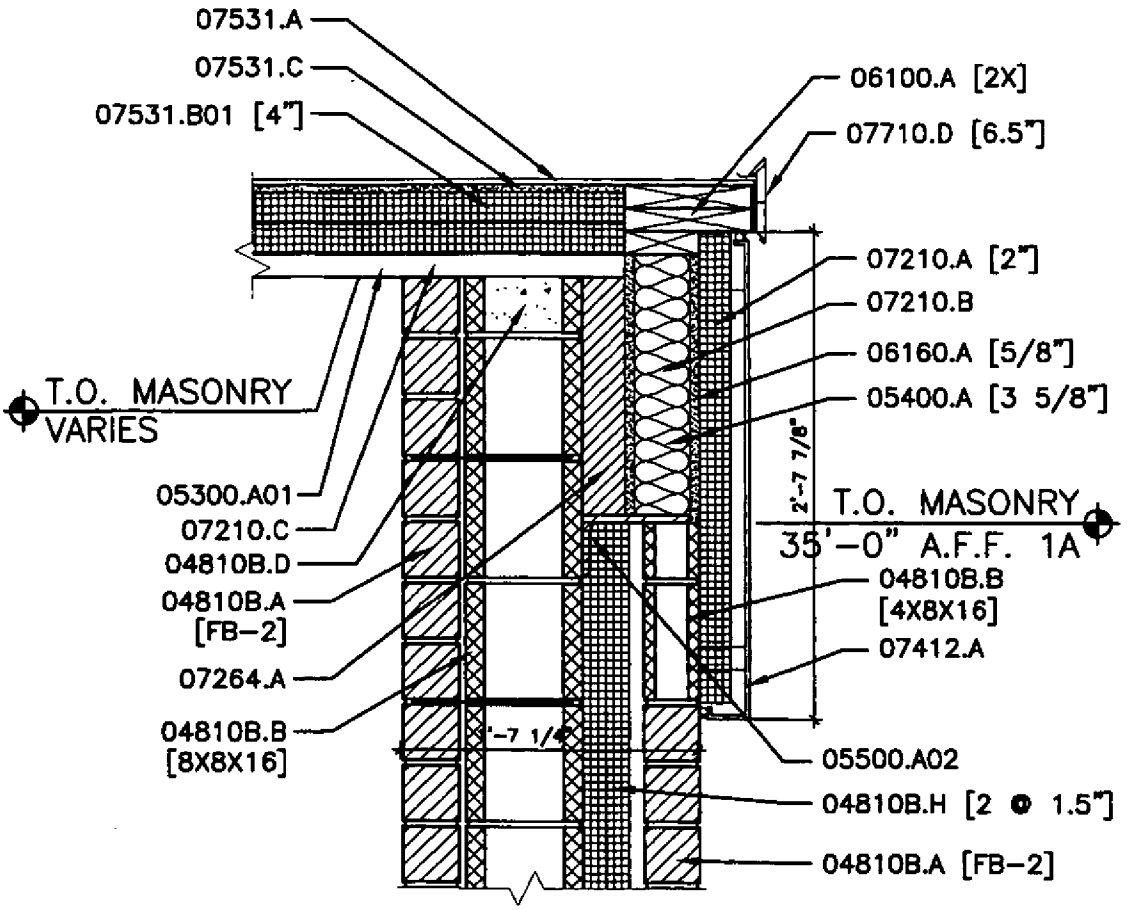
1. WALL TYPE ADDED.
2. DIMENSION ADDED.

A2 FIRST FLOOR PLAN AREA 'D'

A-105

1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-502	SKETCH #: A-19	ADD #: 1
	RFI #: --	SCALE: 1"=1'-0"	DATE: 07-19-10

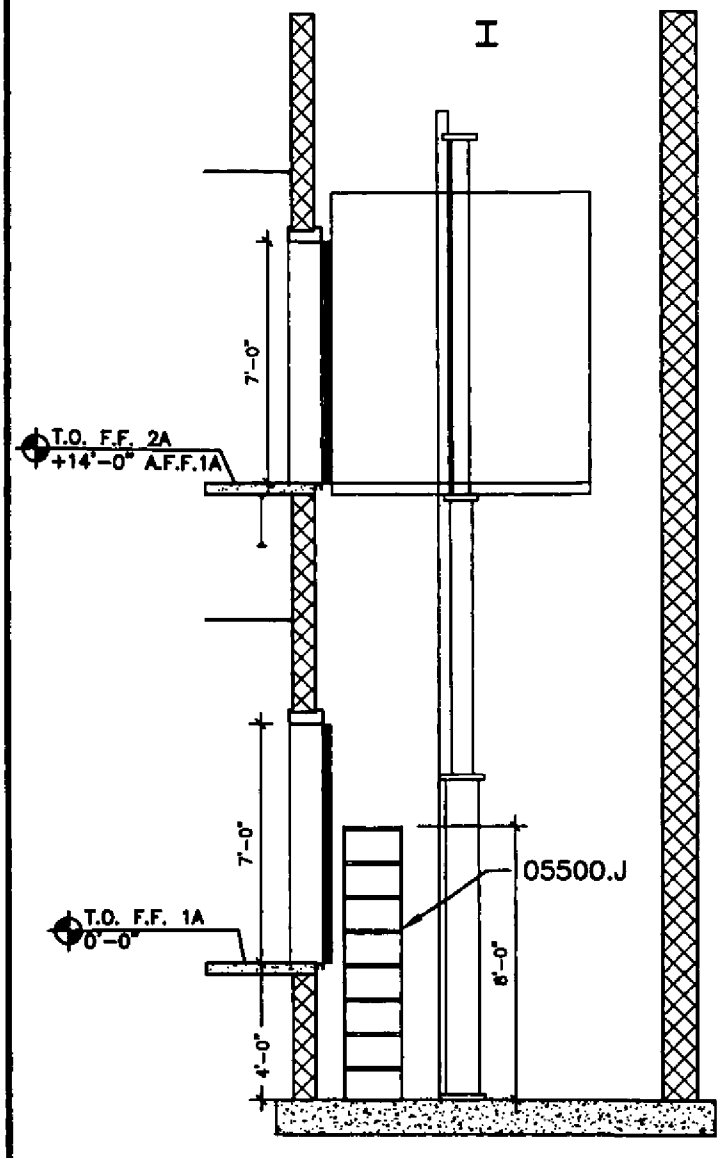


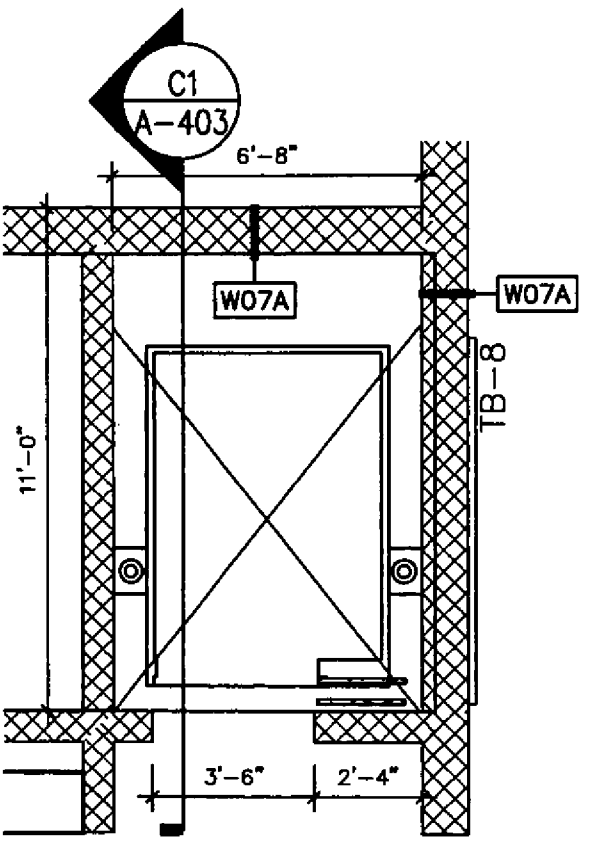
B5 SECTION DETAIL

A-502 1 " =1'-0"

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING:	SKETCH #:	ADD #:
A-403	A-20	1
RFI #:	SCALE:	DATE:
–	VARIES	07-19-10





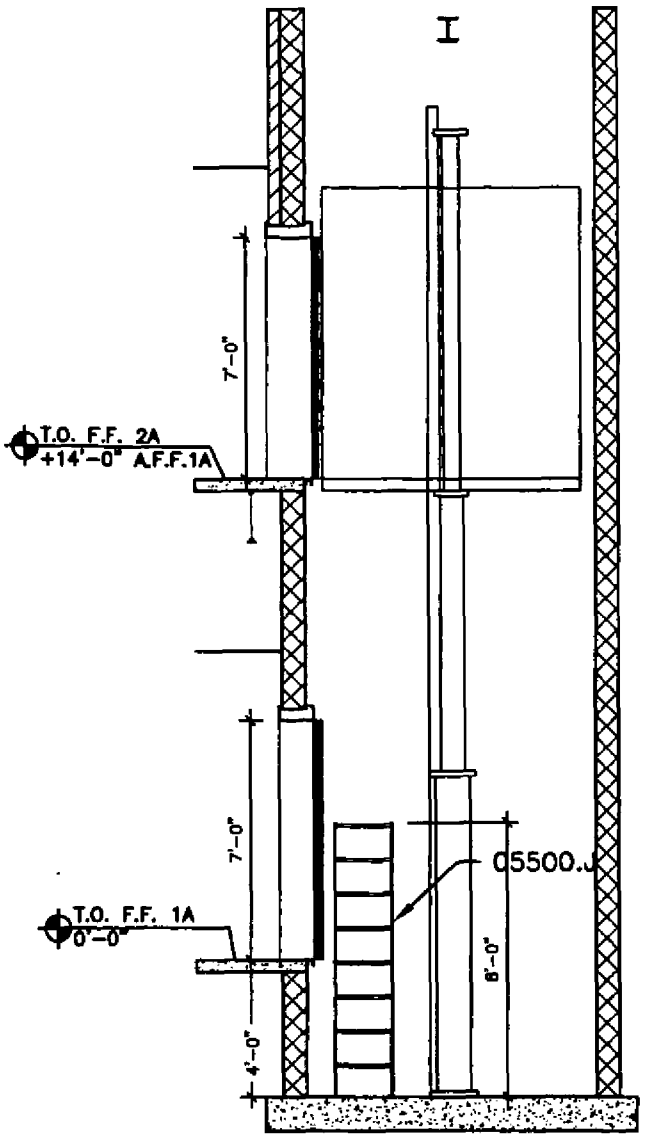
C1 A-403 ELEV. 1 CO3A
3/16"=1'-0"

E1 A-403 ELEV. 1 CO3A
1/4"=1'-0"

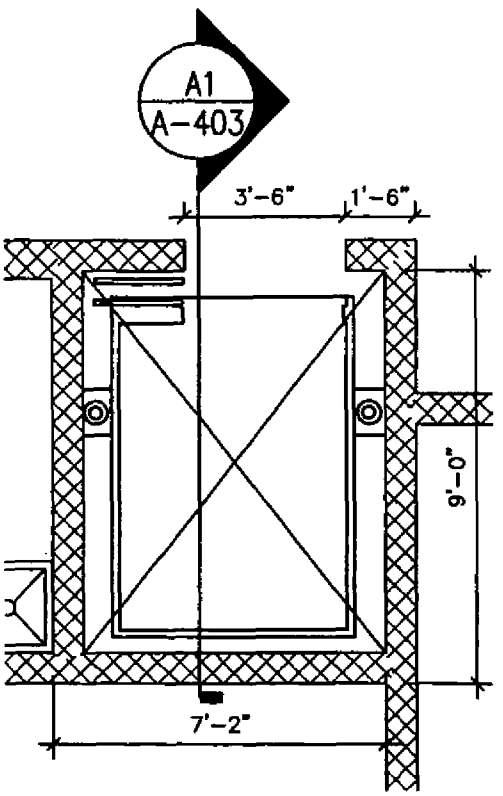
REFERENCE KEYNOTES

DIVISION 5
05500.J ACCESS LADDER

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-403	SKETCH #: A-21	ADD #: 1
	RFI #: --	SCALE: VARIES	DATE: 07-19-10



A1 ELEV. 2 EL2
A-403 3/16"=1'-0"

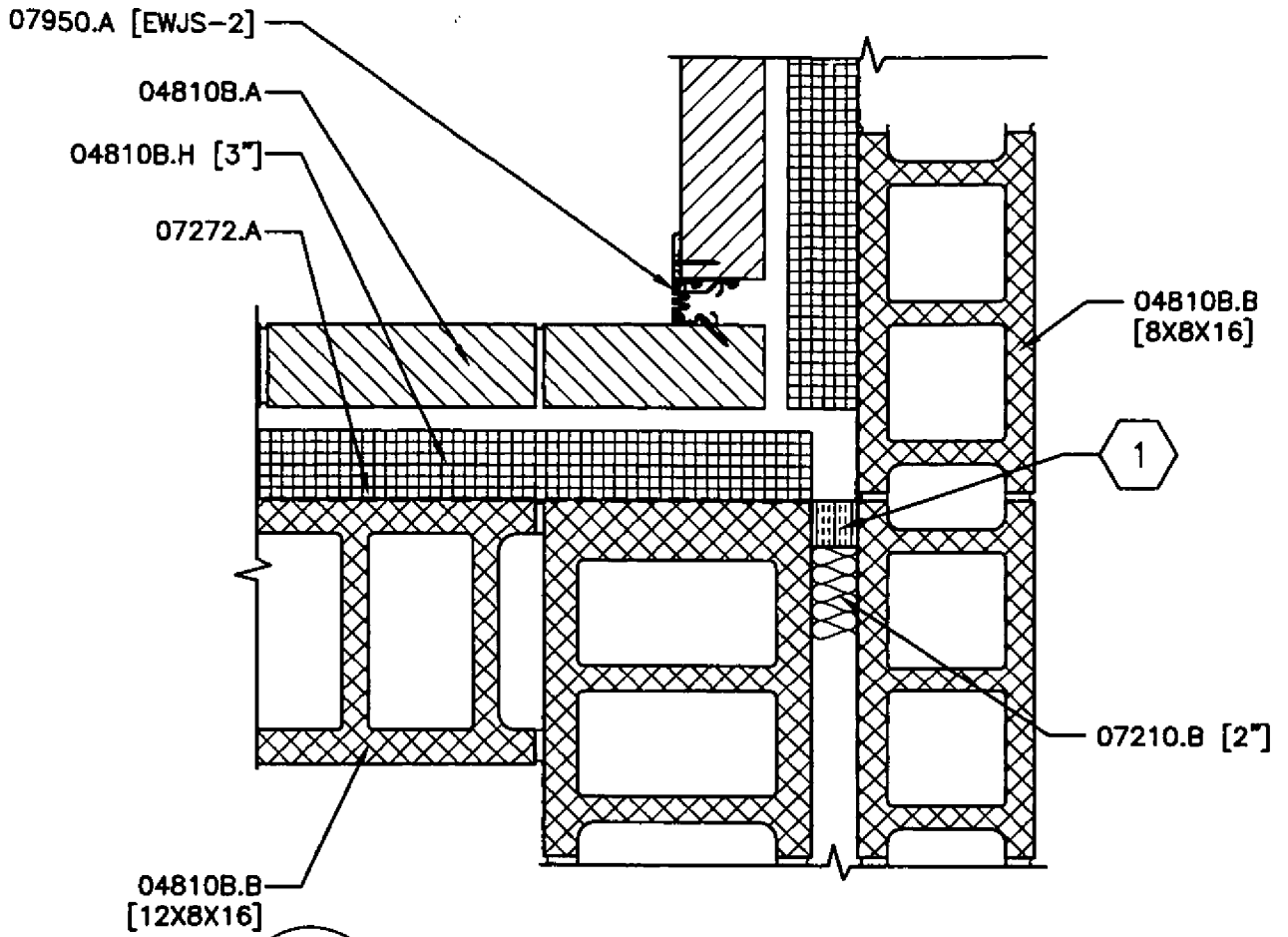


E2 ELEV. 2 EL2
A-403 1/4"=1'-0"

REFERENCE KEYNOTES

DIVISION 5
05500.J ACCESS LADDER

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: A-504	SKETCH #: A-22	ADD #: 1
	RFI #: --	SCALE: 1-1/2"=1'-0"	DATE: 07-19-10



C2 PLAN DETAIL

A-504 1 1/2" =1'-0"

REFERENCE KEYNOTES

DIVISION 4

04810B.A	FACE BRICK
04810B.B	CONCRETE MASONRY UNIT [SIZE]
04810B.H	INSULATION [THK.]

DIVISION 7

07210.B	BATT INSULATION [THK.]
07272.A	AIR/VAPOR BARRIER
07950.A	EXPANSION JOINT SYSTEM [TYPE]

SHEET KEYNOTES

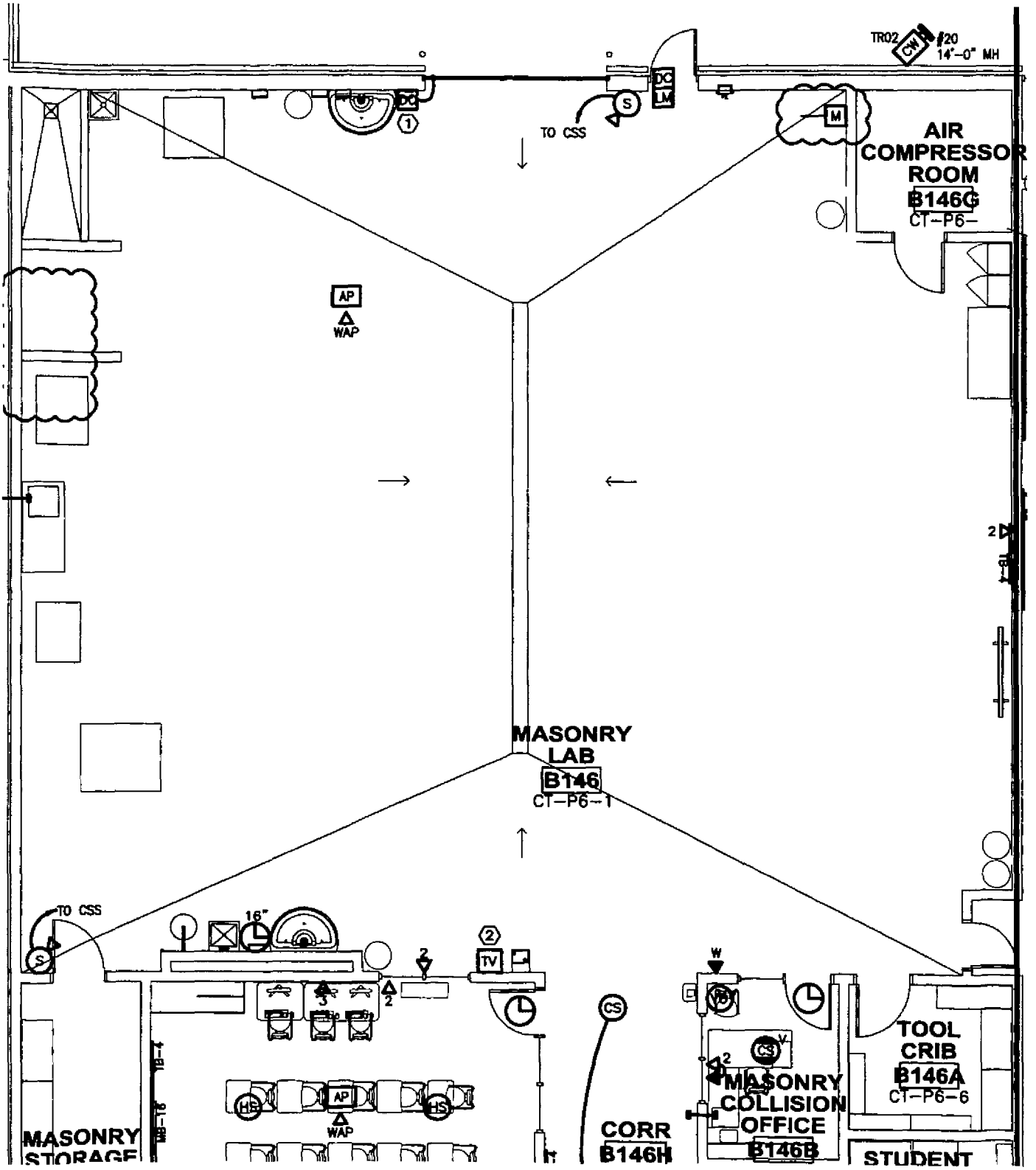
1. EMSEAL 25V -TYPICAL AT ALL 2" EXPANSION JOINTS WITHIN THE CMU AT THE EXTERIOR BUILDING ENVELOPE.

imAgine Akron Public Schools as Community Learning Centers

GPD ASSOCIATES

RUHLIN • PANZICA • JENKINS
RPJ
CONSTRUCTION MANAGERS
400 West Market Street, Suite 1, Akron, Ohio 44303

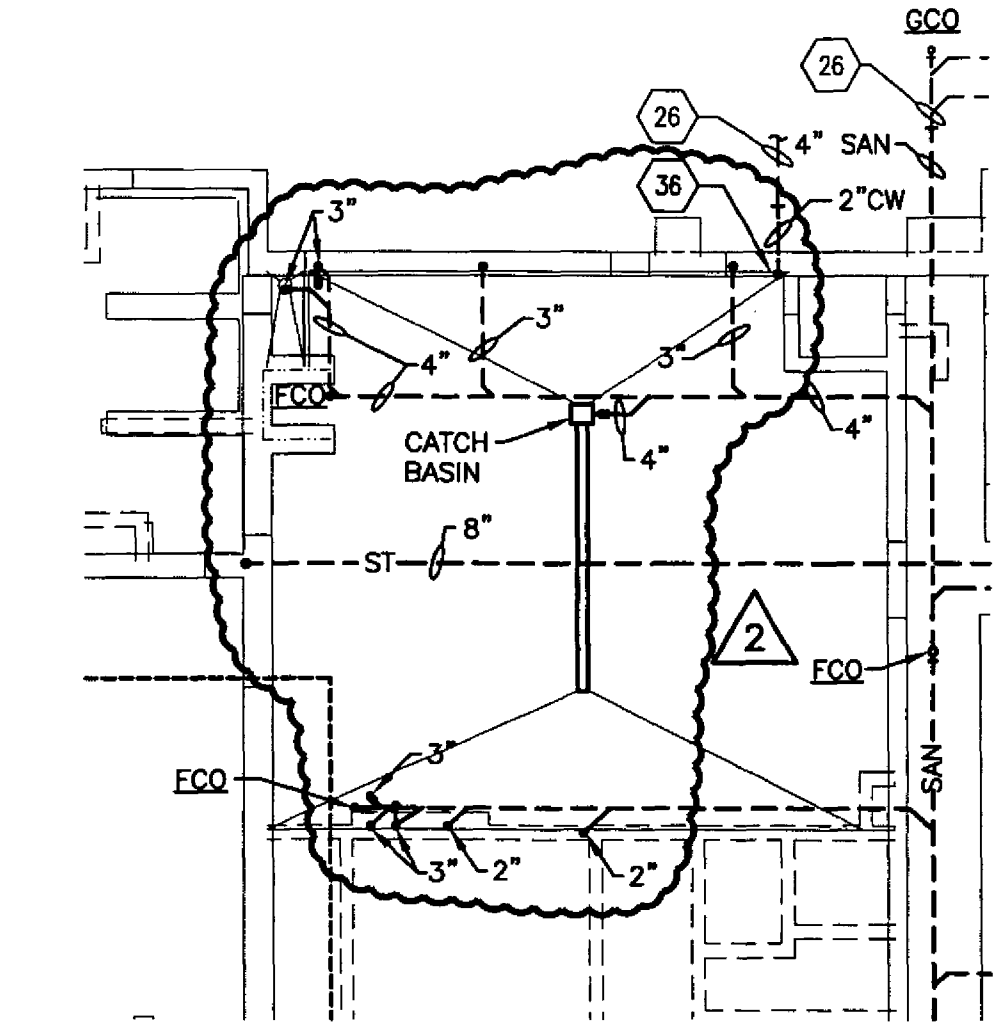
BUCHTEL/PERKINS CLC	
REFERENCED DRAWING: T-103	SKETCH #: SK-T103-A
ISSUE #: ADD #1	P.R. #: 07BUPK9029425
SCALE: N.T.S.	DATE: 7/19/10



BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-101	SKETCH #: P-072010-01	ADD #: 1
	RFI #: —	SCALE: 1"=20'	DATE: 07-20-10

SHEET KEYNOTES

35. NEW 4" SAN TO FD-2. CONNECT TO NEW 4" SAN.



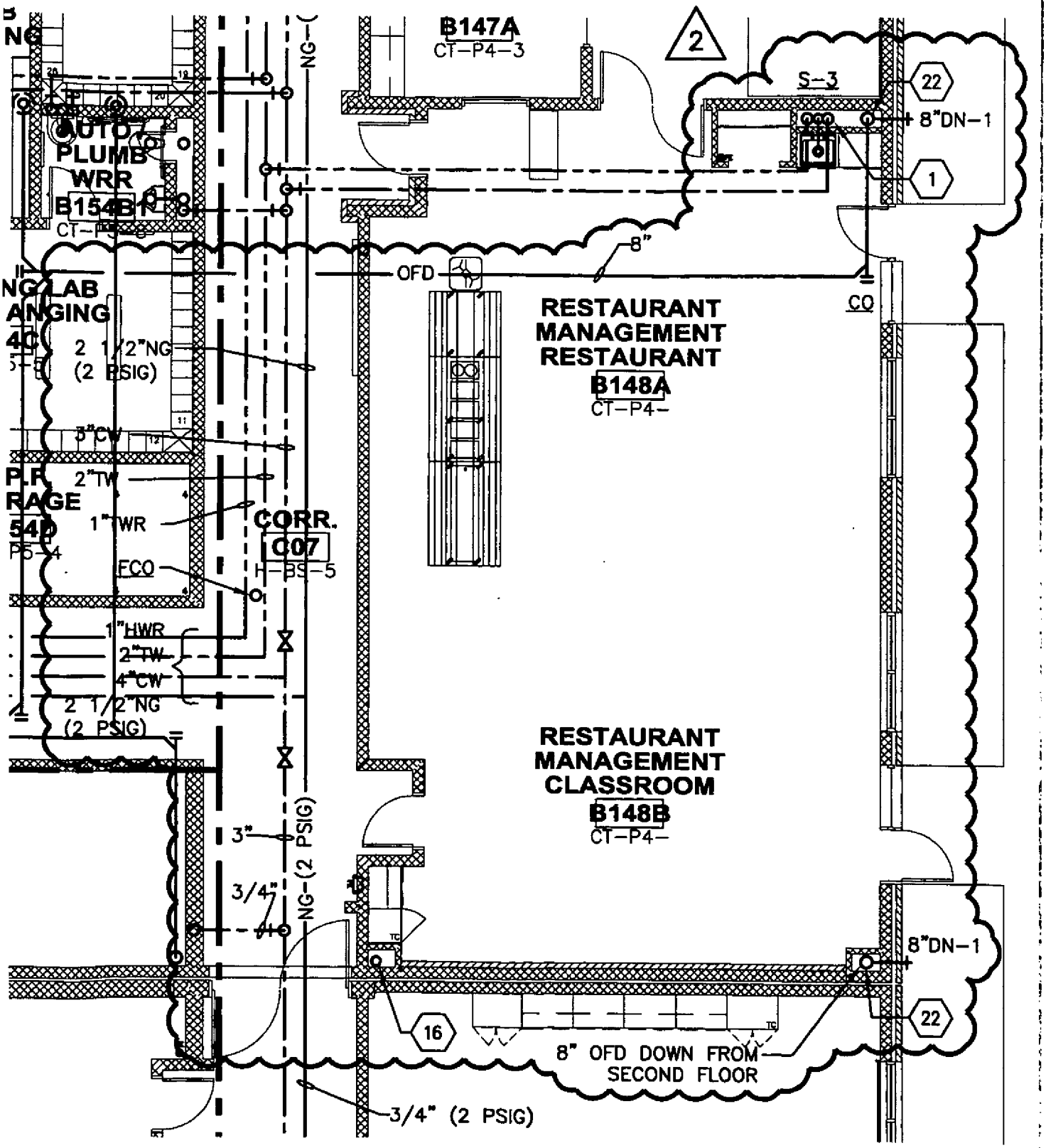
A3 / P-101 OVERALL UNDER FLOOR PLUMBING PLAN

1"=20'

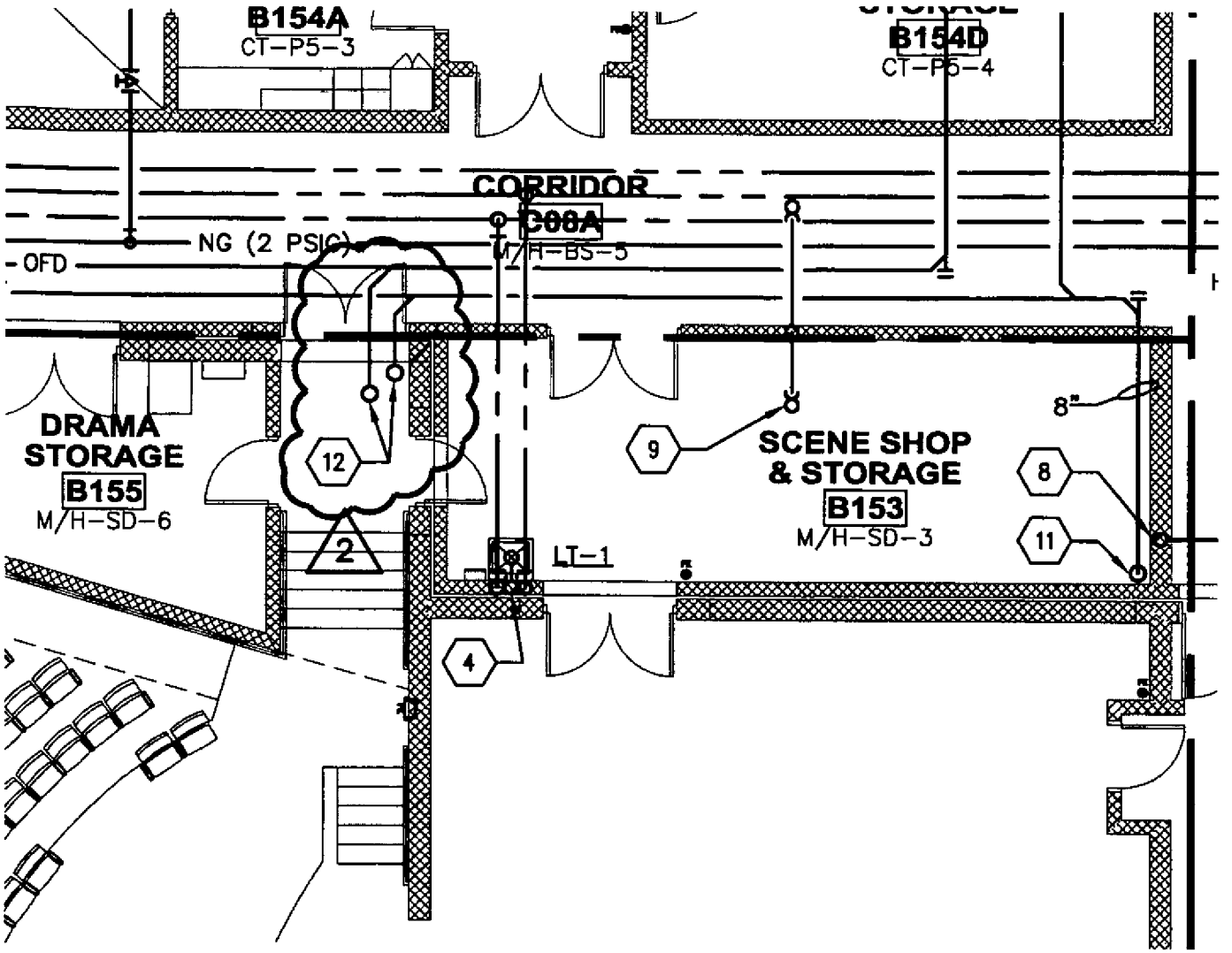
BUCHTEL,PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-102	SKETCH #: P-072010-02	ADD #: 1
	RFI #: ---	SCALE: 1/8"=1'-0"	DATE: 07-20-10

2

22. 8" OVERFLOW DRAIN DOWN IN CHASE AND DISCHARGE 12" ABOVE GRADE TO DOWNSPOUT NOZZLE DN-1.



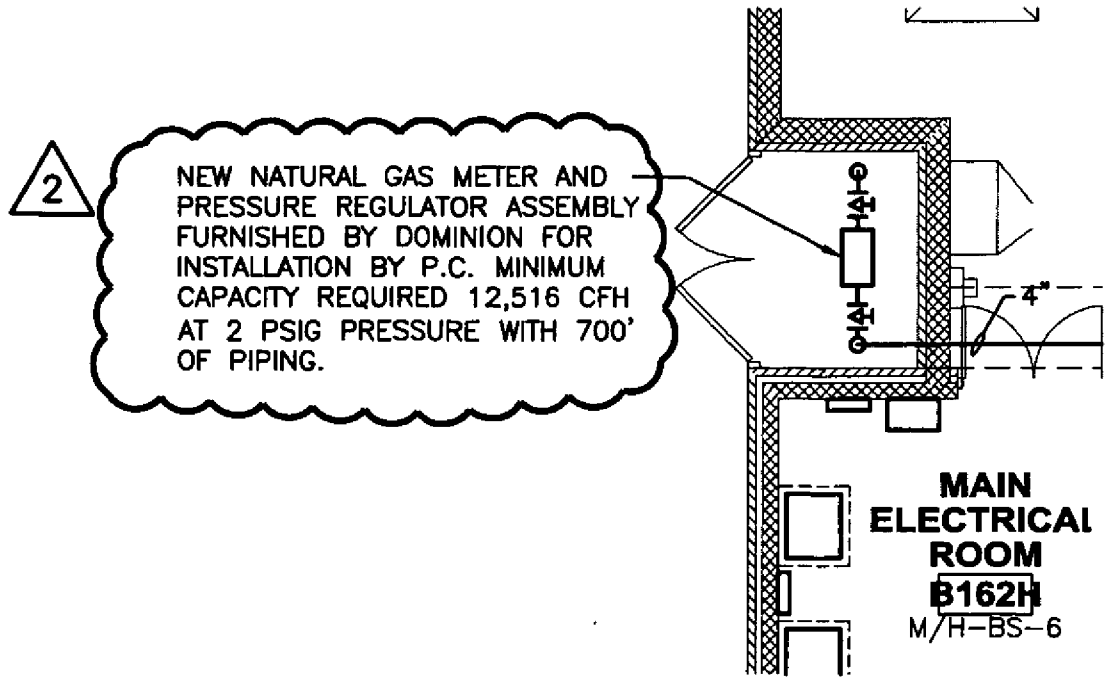
BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-105	SKETCH #: P-072010-03	ADD #: 1
	RFI #: —	SCALE: 1/8"=1'-0"	DATE: 07-20-10

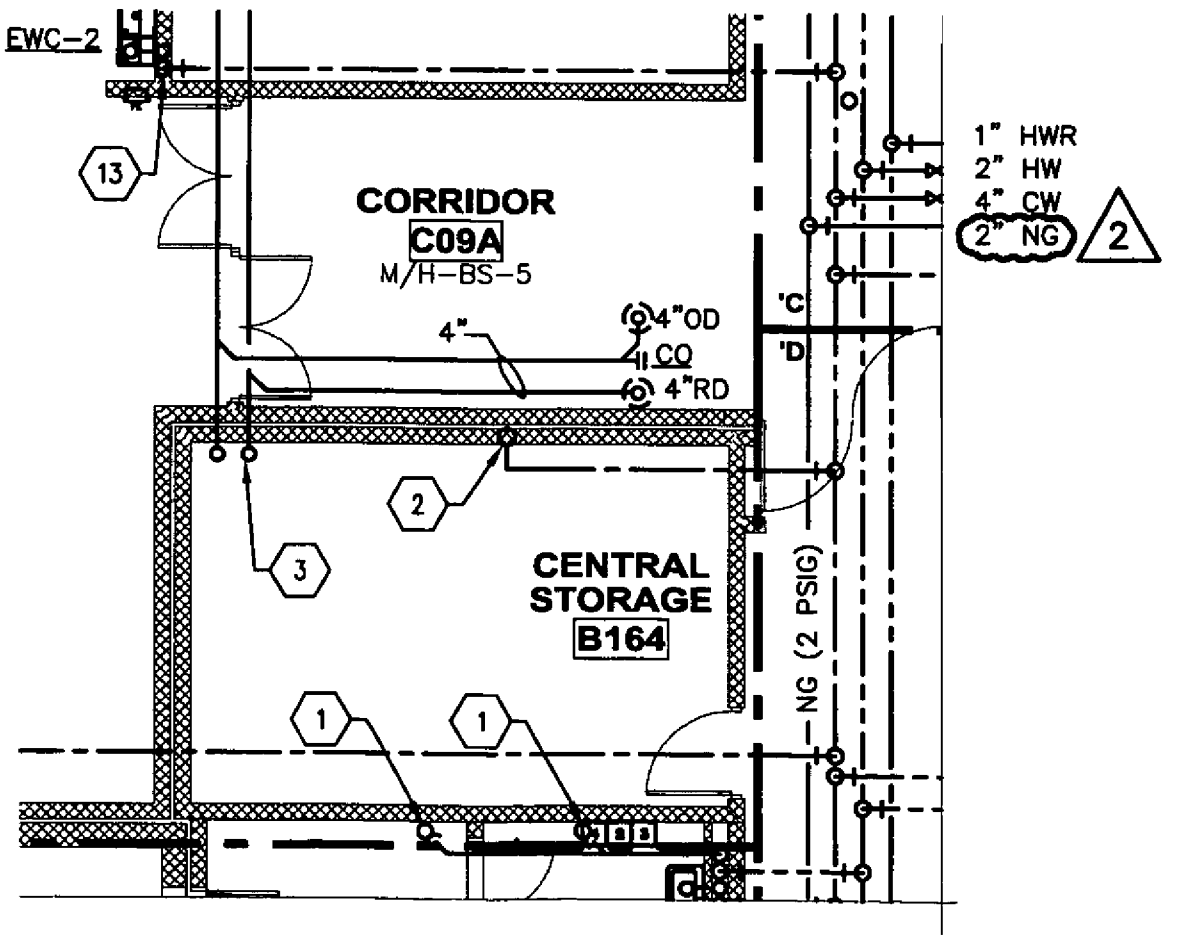


A3 FIRST FLOOR PLUMBING PLAN AREA 'D'

P-105 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-106	SKETCH #: P-072010-04	ADD #: 1
	RFI #: —	SCALE: 1/8"=1'-0"	DATE: 07-20-10

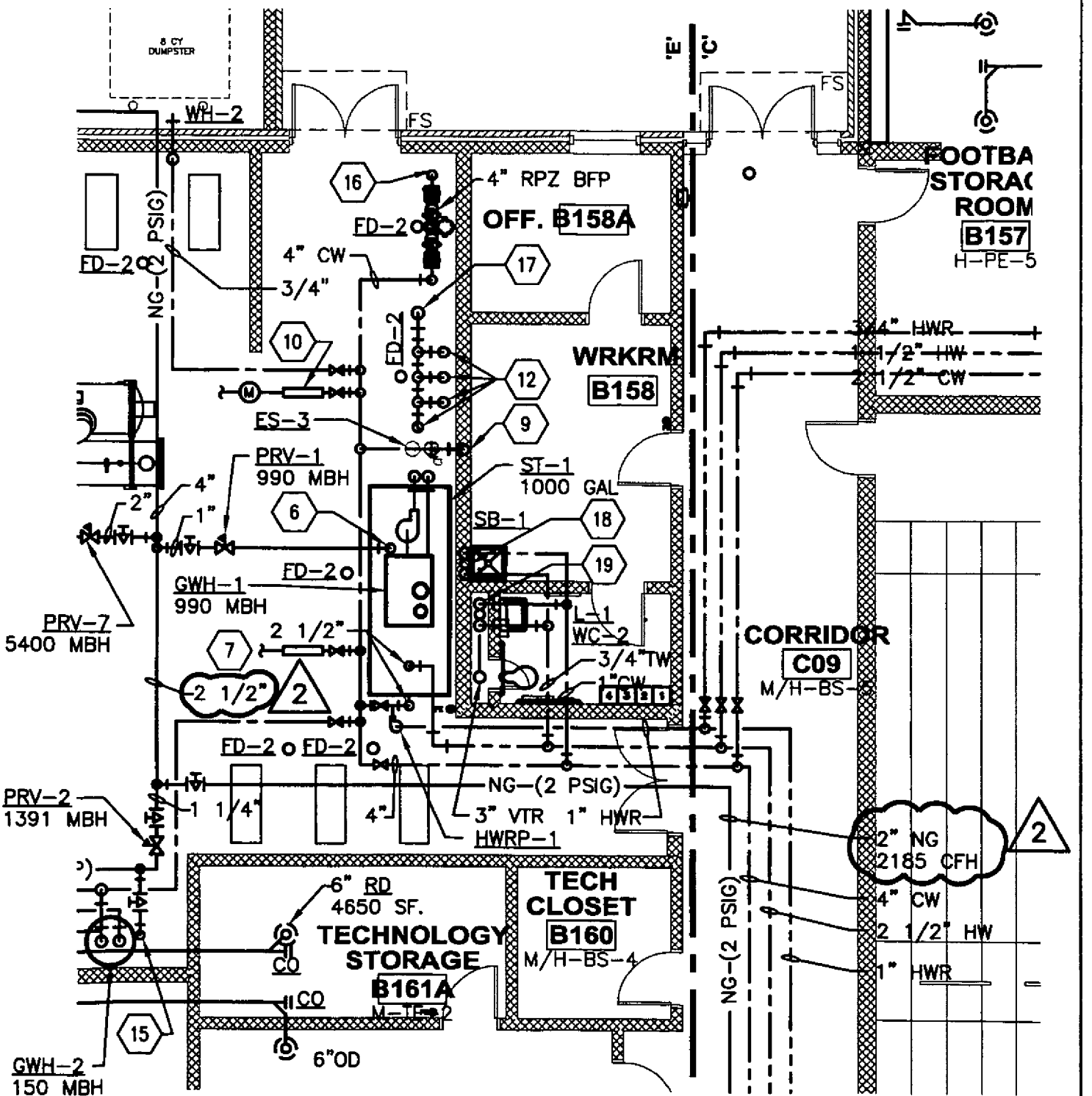

2
NEW NATURAL GAS METER AND PRESSURE REGULATOR ASSEMBLY FURNISHED BY DOMINION FOR INSTALLATION BY P.C. MINIMUM CAPACITY REQUIRED 12,516 CFH AT 2 PSIG PRESSURE WITH 700' OF PIPING.
4"
MAIN ELECTRICAL ROOM
B162H
M/H-BS-6



A3 FIRST FLOOR PLUMBING PLAN AREA 'E'

P-106 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-106	SKETCH #: P-072010-05	ADD #: 1
	RFI #: ---	SCALE: 1/8"=1'-0"	DATE: 07-20-10

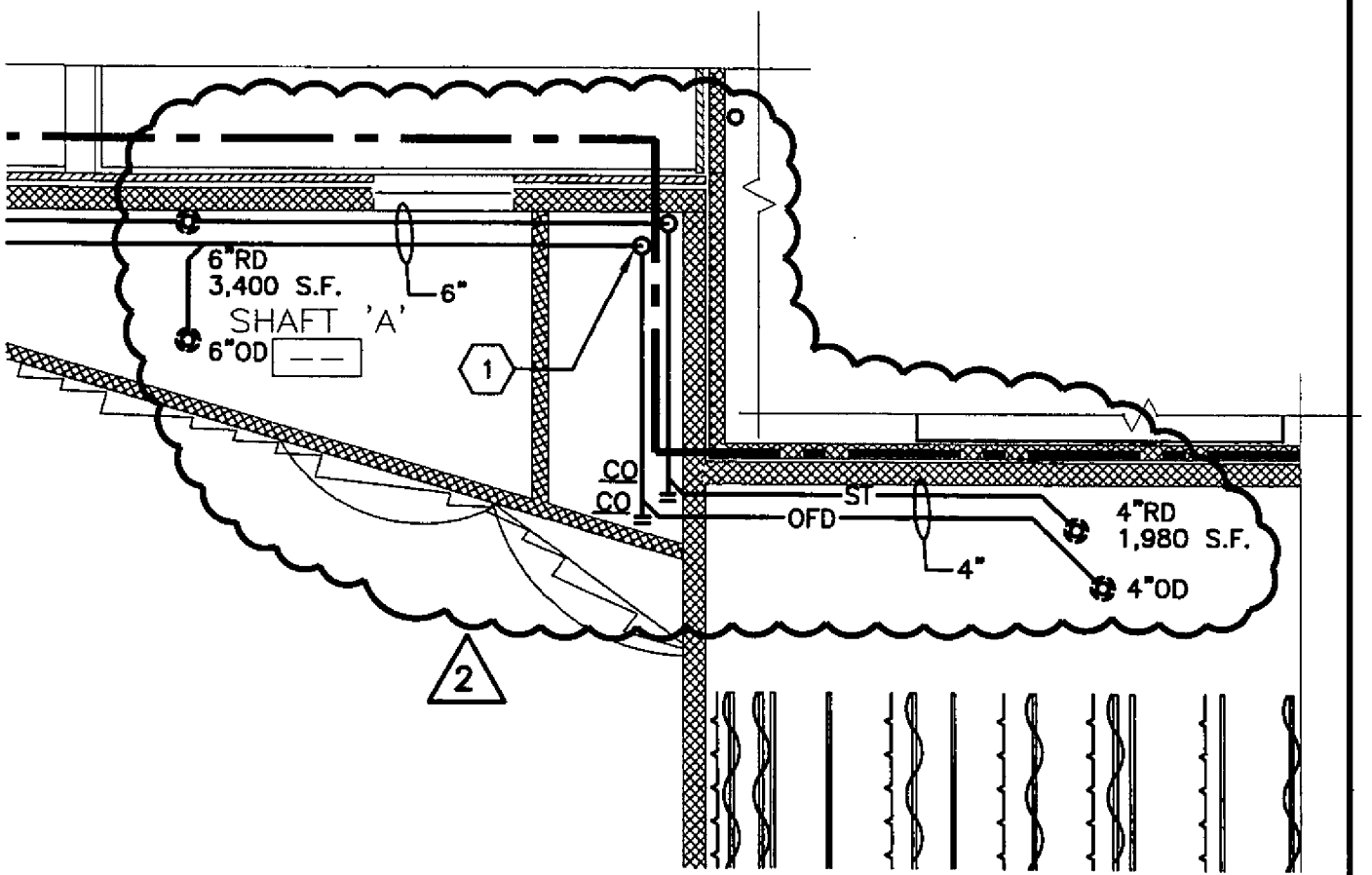


A3 FIRST FLOOR PLUMBING PLAN AREA 'E'

P-106

1/8"=1'-0"

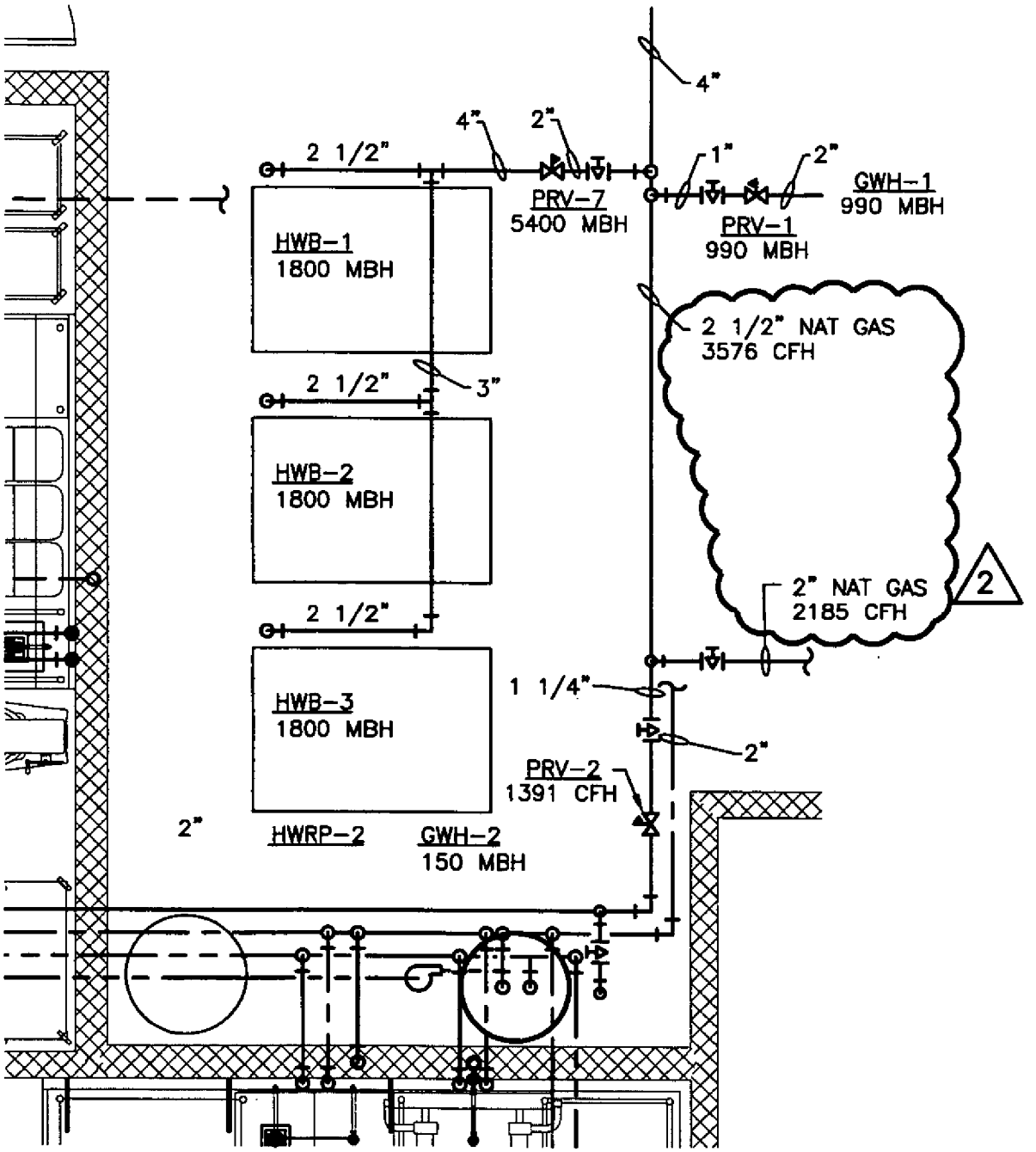
BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-113	SKETCH #: P-072010-06	ADD #: 1
	RFI #: —	SCALE: 1/8"=1'-0"	DATE: 07-20-10



A1 SECOND FLOORPLUMBING PLAN AREA 'D'

P-113 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-401	SKETCH #: P-072010-07	ADD #: 1
	RFI #: ---	SCALE: 1/8"=1'-0"	DATE: 07-20-10



A1 ENLARGED MAIN KITCHEN PLAN

P-401 1/4"=1'-0"

PLUMBING FIXTURE SCHEDULE

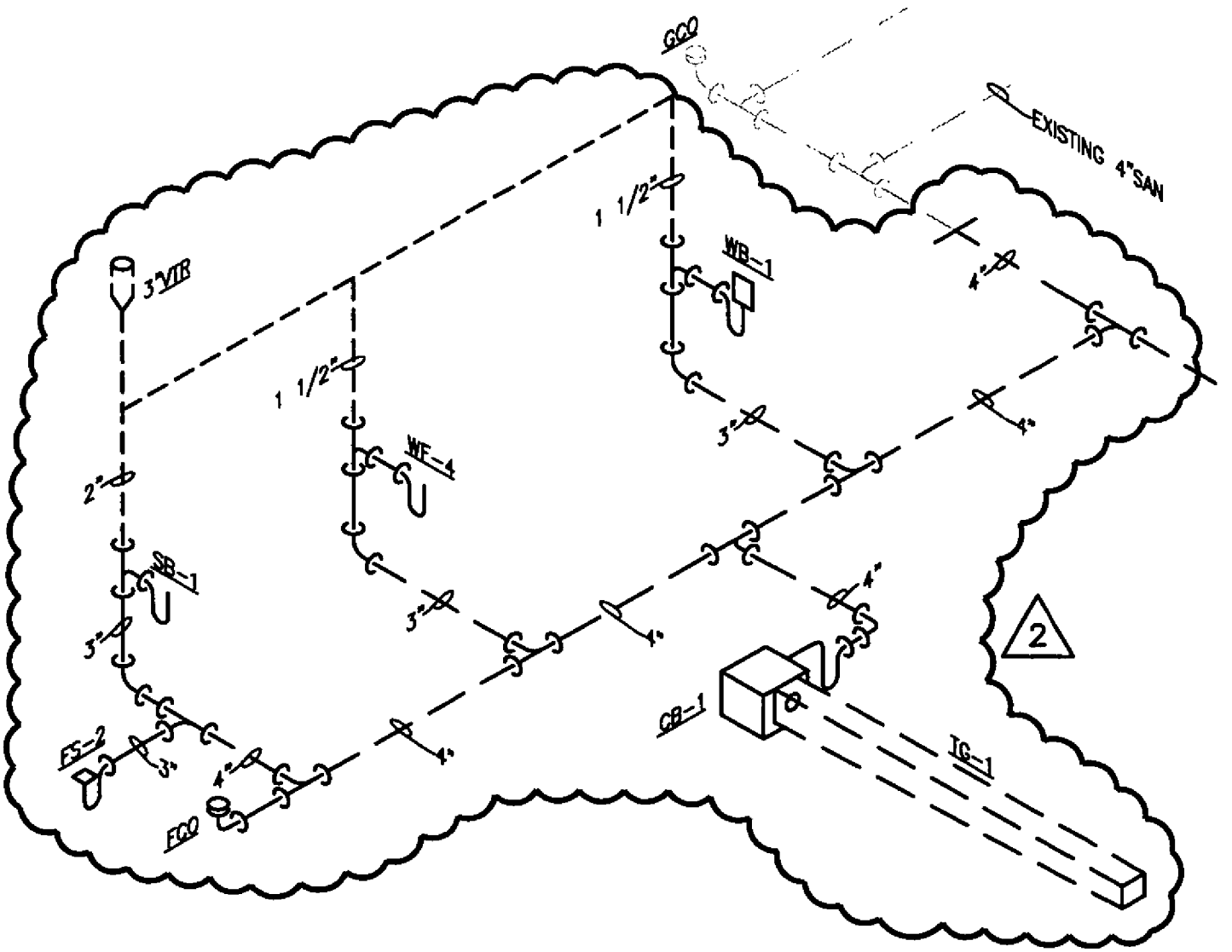
SYM.	MFR.	MODEL No.	DESCRIPTION	CONNECTIONS				
				CW	TW	HW	WASTE	VENT
TG-1	J.R. SMITH	2972	HEAVY DUTY DUCO CAST IRON TRENCH GRATING AND STEEL FRAME TO PROVIDE LARGE FREE DISCHARGE AREA COMBINED WITH CONTINUOUS GRATE SECTIONS IN LENGTH SHOWN ON PLANS. TRENCH TO DRAIN INTO CATCH BASIN AT THE END. CONFIRM LENGTH OF TRENCH DRAIN ON PLANS.	-	-	-	-	-
2								
CB-1	J.R. SMITH	9812-880-CB24	POLYESTER RESIN FIBERGLASS CATCH BASIN DUCO COATED STEEL FRAME WITH INTEGRAL INSTALLATION BRACKETS AND SECURED DUCTILE IRON SLOTTED GRATE AND PLASTIC TRASH BUCKET. FORMED CONCRETE TRENCH TO DRAIN INTO CATCH BASIN THEU 4" PVC PIEP ADAPTER AT 2" ABOVE LOW POINT OF TRENCH.	-	-	-	4"	-
2								
AC-1 AC-2	GARDNER DENVER	LHR5-8	ELECTRIC-DRIVEN, HEAVY DUTY, TWO STAGE, SPLASH LUBRICATED AIR COMPRESSOR, 5 HP, WITH 80 GALLON HORIZONTAL STORAGE TANK, 208V/3PH/60HZ, 17.3 SCFM AT 125 PSI, 100% CONTINUOUS DUTY CYCLE, 175 PSI MAXIMUM OPERATION PRESSURE. PROVIDE WITH STANDARD GENERAL PURPOSE COMPRESSED AIR FILTER, MAGNETIC MOTOR STARTER, AIR-COOLED AFTERCOOLER, AUTOMATIC TANK DRAIN, VIBRATION ISOLATION PADS AND HIGH FLOW PRESSURE REGULATOR. REGULATOR TO BE SET FOR 80 PSI. COMPRESSOR IS TO BE SUPPLIED WITH A PRESSURE SWITCH AND A LEAD/LAG ALTERNATING CONTROL PANEL TO ALTERNATE THE TWO AIR COMPRESSORS OPERATION. THE PRESSURE SWITCHES WILL BE WIRED TO THE CONTROL PANEL. THE TWO LEVELS OF PRESSURE SWITCHES WILL TURN THE COMPRESSORS ON AT THE FIRST LEVEL (ALTERNATING BETWEEN COMPRESSORS FOR EACH START). THE SECOND LEVEL OF PRESSURE WILL START THE SECOND AIR COMPRESSOR. BOTH COMPRESSORS ARE REQUIRED TO OPERATE SIMULTANEOUSLY TO MEET THE DESIGN REQUIREMENT. INSTALLATION IS TO BE INSPECTED BY A MANUFACTURES APPROVED REP. APPROX. WT. 535 LBS.	-	-	-	-	-
2								
LT-1	FIAT	FL-1	MOLDED FLOOR MOUNTED LAUNDRY TUB, SELF RIM SINGLE BOWL SINK W/ MOEN FAUCET NO. 74998, HOSE CONNECTION, VACUUM BREAKER, AND LK-99 BASKET STRAINER AND STOP. USE J.R. SMITH 8714 SOLIDS INTERCEPTOR IN PLACE OF P-TRAP (SET ON FLOOR). USE 3/8" CHROME ANGLE STOPS ON HOT AND COLD WATER WITH LOOSE KEY HANDLES.	1/2"	-	1/2"	1 1/2"	1 1/2"
2								

NOTE: SEE SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS.

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING: P-601
SKETCH #: P-072010-08
ADD #: 1
RFI #: —
SCALE: N.T.S
DATE: 07-20-10

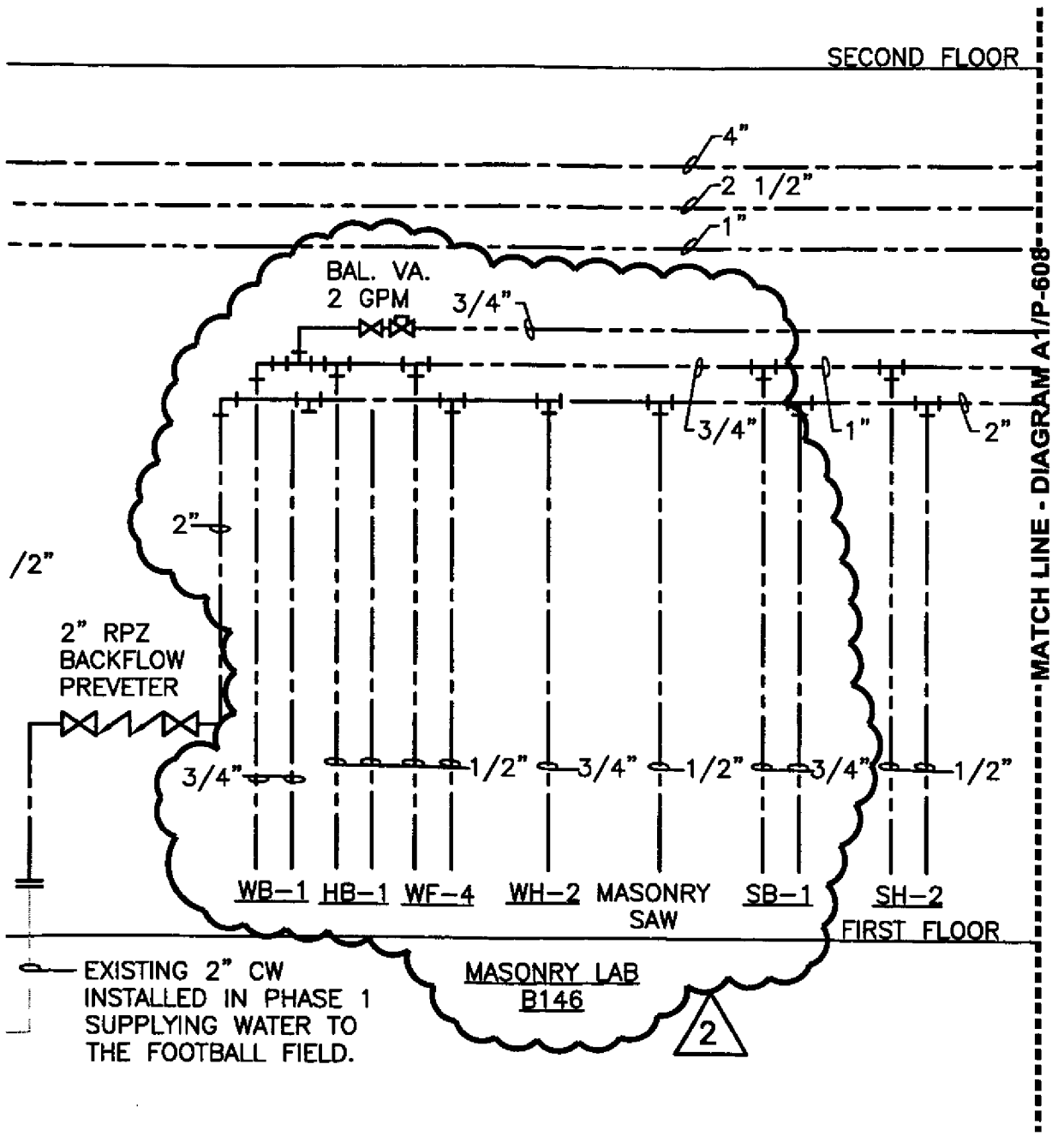
BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-606	SKETCH #: P-072010-09	ADD #: 1
	RFI #: —	SCALE: N.T.S	DATE: 07-20-10



A1 PLUMBING ISOMETRIC AREA 'C'

P-606 N.T.S.

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: P-608	SKETCH #: P-072010-10	ADD #: 1
	RFI #: ---	SCALE: N.T.S	DATE: 07-20-10



C1 WATER RISER DIAGRAM

P-608 N.T.S.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER MODEL NO.	CAP. CFM	ESP INCHES	FAN HP/W	FAN RPM	ELEC.	OPER. WGHT.	ACTIVATED	REMARKS
EF 73	GREENHECK SSI-14-440-C8	700	.125	1/8	860	120/1	50	THERMOSTAT	(9)
2 EF 74	NOT USED								
EF 75	NOT USED								
EF 76	NOT USED								
EF 77	NOT USED								

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING: M-602
SKETCH #: M-072010-01
ADD #: 1
RFI #: ---
SCALE: N.T.S
DATE: 07-20-10

DIFFUSER AND GRILLE SCHEDULE

MARK	MANUFACTURER MODEL NO.	NECK SIZE	FACE SIZE	MOUNTING	MAX. CFM	PATTERN	SP @ MAX. CFM	REMARKS
CD-11	PRICE #520	18"x6"	20"x8"	SURFACE	450	45°	.12	①②④⑤

AIR CLEANING UNIT SCHEDULE

MARK	MANUFACTURER MODEL NUMBER	CFM	ESP IN WG	FAN RPM	HP	FILTERS: PRE/SEC/FINAL	ELEC.	SHIPPING WGT. LBS.	NOTES
ACU 1	AIR CLEANING SYSTEMS TRION M3000V	3000	.50	2650	2	3 WAY WRAPAROUND/ 35% PLEATED/ 95% BAG	480V-3PH	330	PROVIDE SILENCER AND MAGNAHELIC GAUGE
ACU 2	AIR CLEANING SYSTEMS TRION M3000V	3000	.50	2650	2	3 WAY WRAPAROUND/ 35% PLEATED/ 95% BAG	480V-3PH	330	PROVIDE SILENCER AND MAGNAHELIC GAUGE
ACU 3	AIR CLEANING SYSTEMS TRION M3000V	3000	.50	2650	2	3 WAY WRAPAROUND/ 35% PLEATED/ 95% BAG	480V-3PH	330	PROVIDE SILENCER AND MAGNAHELIC GAUGE
ACU 4	AIR CLEANING SYSTEMS TRION M3000V	3000	.50	2650	2	3 WAY WRAPAROUND/ 35% PLEATED/ 95% BAG	480V-3PH	330	PROVIDE SILENCER AND MAGNAHELIC GAUGE
ACU 5	AIR CLEANING SYSTEMS TRION M3000V	3000	.50	2650	2	3 WAY WRAPAROUND/ 35% PLEATED/ 95% BAG	480V-3PH	330	PROVIDE SILENCER AND MAGNAHELIC GAUGE
ACU 6	AIR CLEANING SYSTEMS TRION M3000V	3000	.50	2650	2	3 WAY WRAPAROUND/ 35% PLEATED/ 95% BAG	480V-3PH	330	PROVIDE SILENCER AND MAGNAHELIC GAUGE

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING: M-603
SKETCH #: M-072010-02
ADD #: 1
RFI #: ---
SCALE: N.T.S
DATE: 07-20-10

REMARKS
FURNISH UNIT WITH E3 STAINLESS STEEL HEAT EXCHANGER, ELECTRONIC BURNER MODULATION, LONMARK DDC COMPATIBLE, OUTSIDE/RETURN AIR DAMPER PACKAGE, REMOTE ROOM AIR SENSOR, DISCONNECT SWITCH, 2" PLEATED FILTER RACK, FREEZESTAT, DOUBLE WALL CABINET CONSTRUCTION, FULL ROOF CURB, 2 PSIG GAS REGULATOR, OUTSIDE AIR HOOD AND DOWNTURN PLENUM.
FURNISH UNIT WITH E3 STAINLESS STEEL HEAT EXCHANGER, ELECTRONIC BURNER MODULATION, LONMARK DDC COMPATIBLE, OUTSIDE/RETURN AIR DAMPER PACKAGE, REMOTE ROOM AIR SENSOR, DISCONNECT SWITCH, 2" PLEATED FILTER RACK, FREEZESTAT, DOUBLE WALL CABINET CONSTRUCTION, FULL ROOF CURB, 2 PSIG GAS REGULATOR, OUTSIDE AIR HOOD AND DOWNTURN PLENUM.

MAKEUP AIR UNIT SCHEDULE

TAG	MAKE	MODEL	CFM	O.A. CFM	ESP/ TSP	HP	HEATING				AFUE	MCA	ELECTRICAL	WEIGHT
							INPUT MBH	OUTPUT MBH	EAT °F	LAT °F				
MAU 1	REZNOR	HRPB-200	2700	400	0.50/ 1.20	2.0	200	160	60	110	80%	3.4	460/3/60	600
MAU 2	REZNOR	HRPB-250	4000	865	0.50/ 1.20	3.0	250	200	48	92	80%	4.8	460/3/60	1000

2

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

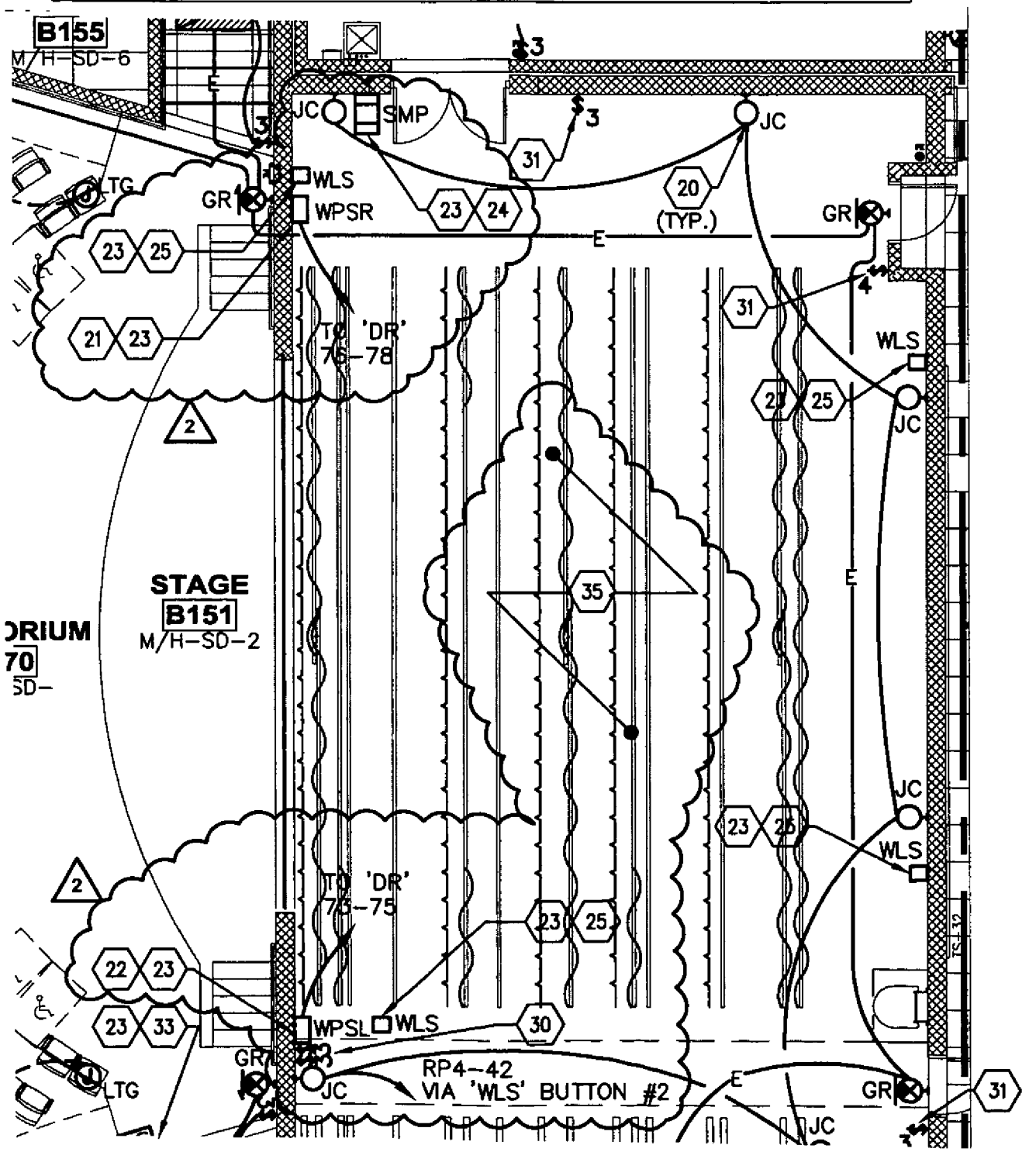
REFERENCED DRAWING: M-604
SKETCH #: M-072010-03
ADD #: 1
RFI #: --
SCALE: N.T.S
DATE: 07-20-10

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: E-104	SKETCH #: E-072010-01	ADD #: 1
	RFI #: ---	SCALE: 1/8" = 1'-0"	DATE: 07-20-10

SHEET KEYNOTES

2

35. FIELD VERIFY EXACT LOCATIONS OF ALL WALL MOUNTED LIGHTS, SWITCHES, EQUIPMENT, ETC. WITHIN STAGE AREA WITH RIGGING CONTRACTOR/INSTALLER PRIOR TO ROUGH-IN TO AVOID POTENTIAL CONFLICTS WITH RIGGING, CURTAINS, ETC.



INTERIOR LIGHTING FIXTURE SCHEDULE – 16511

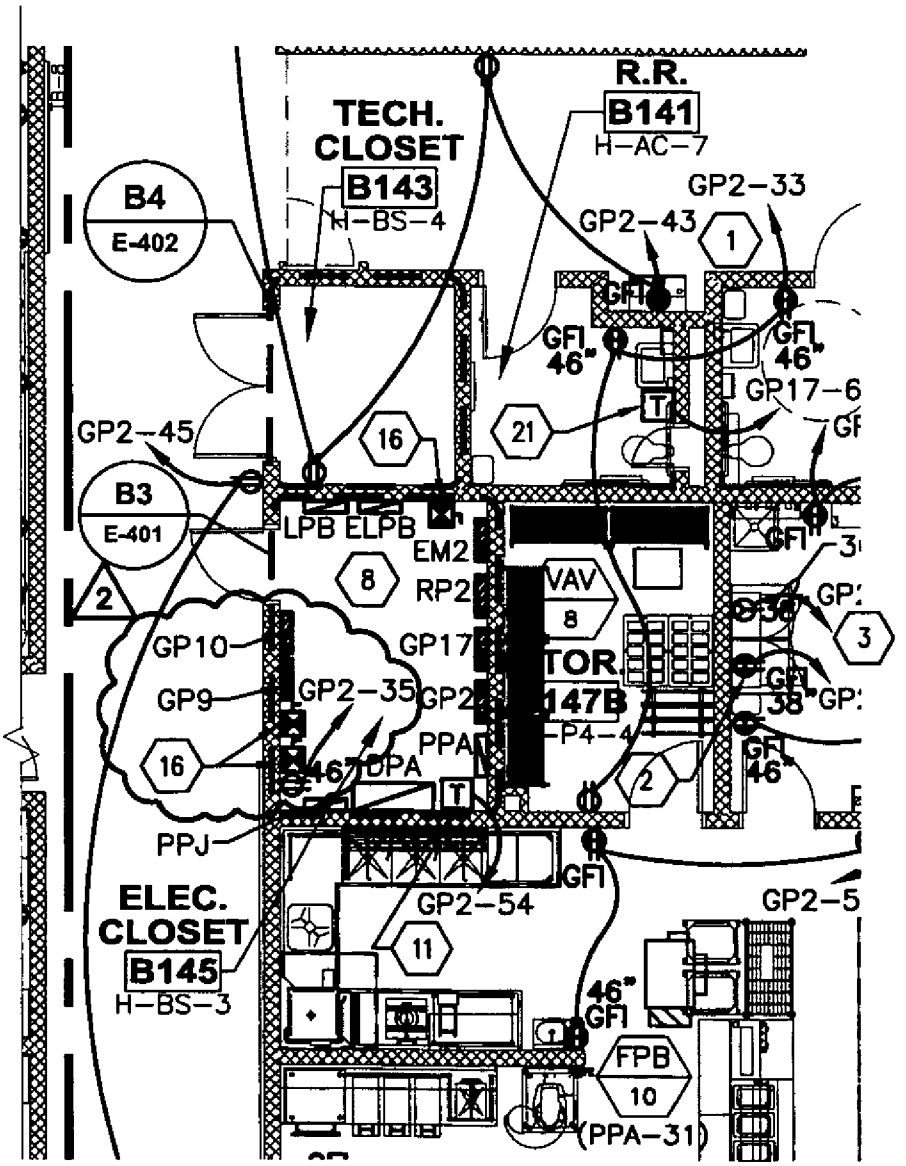
TYPE	VA	LAMPS	120V	277V	DESCRIPTION	MANUFACTURER	CAT SERIES	REMARKS
⊗	4	LED EVEN ILLUM		•	SINGLE FACE EXIT; AC ONLY W/ LED LAMP MODULES; RED UNIFORMLY ILLUMINATED FACE; DIE-CAST AL HOUSING, UNIVERSAL ARROWS AND MTG; WHITE FINISH; FLAT POLYCARBONATE VANDAL-RESISTANT SHIELD SCREWED TO FACE OF EXIT SIGN; AND UL 924 LISTED.	LITHONIA SURE-LITES McPHILBEN	LE CAX 55 LINE	'WG' SUBSCRIPT INDICATES WIREGUARD ('WG' FOR FOR GYM AND LOCKER ROOMS, ETC.)
⊗	4	LED EVEN ILLUM		•	SAME AS ABOVE EXCEPT DOUBLE FACE	LITHONIA SURE-LITES McPHILBEN	LE CAX 55 LINE	'WG' SUBSCRIPT INDICATES WIREGUARD ('WG' FOR FOR GYM AND LOCKER ROOMS, ETC.)

2

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING: E-604
SKETCH #: E-072010-02
ADD #: 1
RFI #: --
SCALE: N.T.S
DATE: 07-20-10

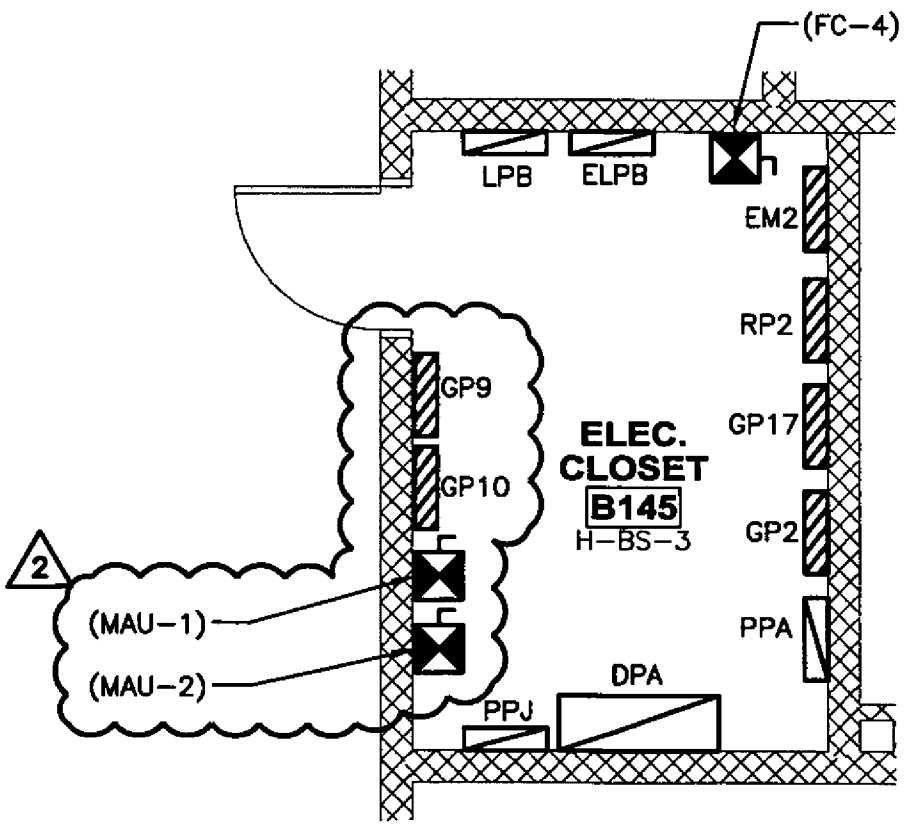
BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: E-115	SKETCH #: E-072010-03	ADD #: 1
	RFI #: ---	SCALE: 1/8"=1'-0"	DATE: 07-20-10



A3 FIRST FLOOR POWER PLAN AREA 'A'

E-115 1/8"=1'-0"

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: E-401	SKETCH #: E-072010-04	ADD #: 1
	RFI #: ---	SCALE: 1/4"=1'-0"	DATE: 07-20-10



AREA 'A' ENLARGED ELECTRICAL CLOSET B145

B3
E-401

1/4"=1'-0"

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

EQUIP. TAG	POWER REQUIREMENTS	PANEL AND CIRCUIT #	CIRCUIT BREAKER/ FUSE SIZE	DISCONNECT/ FUSES/ BREAKERS	STARTERS	COMBINATION STARTER/DISCONNECT	CONDUIT & WIRING INFORMATION	REMARKS
EF-73	FRACTIONAL HP 120/1	GP10-48	20/1	DISCONNECT SWITCH PROVIDED WITH UNIT	N/A	N/A	2#12, 1#12 GND., 3/4" C.	UNIT CONTROLLED BY REMOTE LINE VOLTAGE THERMOSTAT. 2
EF-78 EF-79	128 WATTS 120/1 (EACH)	SEE REMARKS COLUMN	20/1 (EACH)	DISCONNECT SWITCH PROVIDED WITH UNIT	N/A	N/A	2#12, 1#12 GND., 3/4" C. (EACH)	UNIT FURNISHED WITH 277V TO 120V XFMR BY M.C. FANS TO BE CONTROLLED BY LIGHTS WITHIN ROOM. SEE CODED NOTE 3. 2
ACS-1 THRU ACS-6	2 HP 480/3	REFER TO POWER PLANS	20A/3P	N/A	N/A	PROVIDE 600V, 30A/3P, NEMA SIZE 0 COMBINATION MOTOR STARTER WITH FUSIBLE DISCONNECT SWITCH (SEE CODED NOTE 1)	2#12, 1#12 GND., 3/4" C.	PROVIDE NEMA 12 ENCLOSURE. REFER TO SHEET E-117 FOR DETAILS REGARDING AIR CLEANING UNIT CONTROLS.
MAU-2	3 HP 4.8 MCA 480/3	PPJ-7,9,11	20A/3P	PROVIDED WITH UNIT	PROVIDE 600V, 30A/3P, NEMA SIZE 0 COMBINATION MOTOR STARTER WITH FUSIBLE DISCONNECT SWITCH (SEE CODED NOTE 1)	N/A	3#12, 1#12 GND., 3/4"C.	

2

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING:	SKETCH #:	ADD #:
E-609	E-072010-05	1
RFI #: —	SCALE: N.T.S	DATE: 07-20-10

PANEL PPJ

DESCRIPTION	Phase A KW	Phase B KW	Phase C KW	CKT. BKR / Poles			CKT. BKR / Poles	Phase A KW	Phase B KW	Phase C KW	DESCRIPTION
MAU-1	0.94			20 / 3	1	2	20 / 3	0.95			ACS-1
		0.94			3	4			0.95		
			0.94		5	6				0.95	
MAU-2	1.33			20 / 3	7	8	20 / 3	0.95			ACS-2
		1.33			9	10			0.95		
			1.33		11	12				0.95	
SPARE	0.00			20 / 3	13	14	20 / 3	0.95			ACS-3
		0.00			15	16			0.95		
			0.00		17	18				0.95	
FC-4	0.14			20 / 3	19	20	20 / 3	0.95			ACS-4
		0.14			21	22			0.95		
			0.14		23	24				0.95	
SPARE	0.00			20 / 1	25	26	20 / 3	0.95			ACS-5
SPARE		0.00		20 / 1	27	28			0.95		
SPARE			0.00	20 / 1	29	30				0.95	
SPARE	0.00			20 / 1	31	32	20 / 3	0.95			ACS-6
SPARE		0.00		20 / 1	33	34			0.95		
SPARE			0.00	20 / 1	35	36				0.95	
SPARE	0.00			20 / 1	37	38	350 / 3	43.53			TRANSFORMER 'T4' (GP9 & GP10)
SPARE		0.00		20 / 1	39	40			39.99		
SPARE			0.00	20 / 1	41	42				42.60	
	2.41	2.41	2.41					49.23	45.69	48.30	

CONNECTED

KW	51.64	48.10	50.71
AMPS	186.43	173.65	183.07

DIVERSITY:

TOTAL KW 150.45
TOTAL AMPS 180.96

To Panel 'DPA'

TOTAL KW 150.45
TOTAL AMPS 180.96

VOLTAGE 480 Y/ 277 PHASE 3 No OF WIRES 4 NEMA 1 ENCLOSURE

MAIN ____ C/B 3 POLES √ LUGS BUS 400 AMPS 22 KAIC

SERVICE ENTRANCE RATED ____ SPD ____ ISOLATED GROUNDED BUS ____ SURFACE √

200% RATED NEUTRAL ____ FULLY RATED √ FLUSH ____

Buchtel / Perkins CLC

BUCHTEL PERKINS CLC
1040 COPLEY RD., AKRON, OH 44320
PHASE 3 CLC PACKAGE

REFERENCED DRAWING: E-612
SKETCH #: E-072010-06
ADD #: 1
RFI #: —
SCALE: N.T.S
DATE: 07-20-10

BUCHTEL PERKINS CLC 1040 COPLEY RD., AKRON, OH 44320 PHASE 3 CLC PACKAGE	REFERENCED DRAWING: F-501	SKETCH #: F-072010-01	ADD #: 1
	RFI #: ---	SCALE: N.T.S	DATE: 07-20-10

SHEET KEYNOTES

2

22. PROVIDE A N.O. AUXILIARY CONTACT SO THAT WHEN THE BUILDING IS PLACED INTO ALARM MODE, THE SOUND SYSTEM IS "MUTED". PROVIDE A CONTACT CLOSURE FROM THE FIRE ALARM SYSTEM AND TIE INTO EACH SOUND SYSTEM MIXER AS DIRECTED BY THE TECHNOLOGY CONTRACTOR. SOUND SYSTEMS HAVE ALREADY BEEN PROVIDED WITH THIS OVERRIDE CAPABILITY.

23. PROVIDE A N.O./N.C. AUXILIARY CONTACT SO THAT WHEN THE BUILDING IS PLACED INTO ALARM MODE, ALL OF THE EMERGENCY LIGHTING WITHIN THE AUDITORIUM THAT IS FED THRU THE "ELTS" (EMERGENCY LIGHTING TRANSFER SWITCH) ARE TURNED "ON" TO 100% OUTPUT. TIE INTO THE "ELTS" AS DIRECTED BY THE THEATRICAL LIGHTING MANUFACTURER. "ELTS" HAS ALREADY BEEN PROVIDED WITH THIS CAPABILITY TO BYPASS THE LIGHTING CONTROLS.